



CD50H series

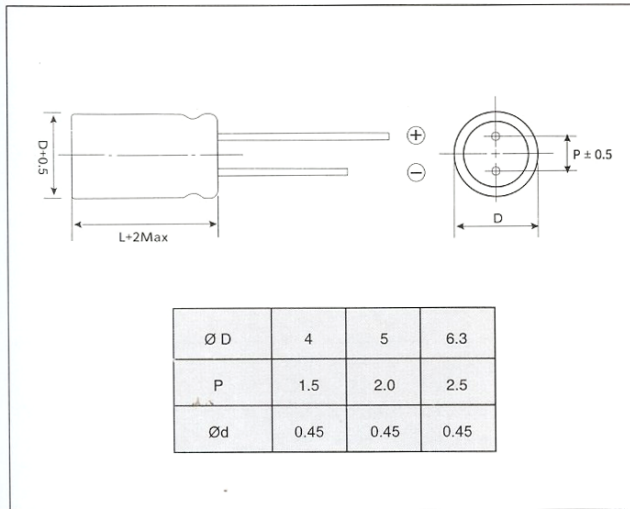
Wide temperature range of $-40\sim+105^{\circ}\text{C}$, with 5mm height
 5mm 高度 宽温度范围 $-40\sim+105^{\circ}\text{C}$ 。

SPECIFICATIONS 特性说明

| Item 项目 | Characteristics 特性 | | | | | | |
|--|--|---|------|------|------|------|------|
| Operating Temperature Range($^{\circ}\text{C}$) 工作温度范围 | -40~+105 | | | | | | |
| Leakage Current 漏电流 | 0.01CV or $3\mu\text{A}$ whichever is greater. (at 20°C , after 2 minutes) C: Nominal Capacitance (μF) V: Rated Voltage (V) 0.01CV 或 $3\mu\text{A}$. 取最大值。(在 20°C , 加电压 2 分钟测试) C: 标准容量 (μF) V: 额定工作电压 (V) | | | | | | |
| Capacitance Tolerance(20°C , 120Hz) 容量偏差 | $\pm 20\%$ | | | | | | |
| Dissipation Factor(20°C , 120Hz) 损耗角正切值 | Rated Voltage(V) 工作电压 | 6.3 | 10 | 16 | 25 | 35 | 50 |
| | Tan δ 损耗角正切值 | 0.28 | 0.24 | 0.20 | 0.14 | 0.12 | 0.10 |
| Temperature Stability(120Hz) 温度特性 | Rated Voltage(V) 工作电压 | 6.3 | 10 | 16 | 25 | 35 | 50 |
| | Impedance Ratio 阻抗比 | Z- 25°C /Z+ 20°C | 3 | | 2 | | |
| | | Z- 40°C /Z+ 20°C | 8 | 5 | 4 | 3 | |
| Load Life(+ 105°C) 耐久性 | Time 时间 | 1000 hours | | | | | |
| | Leakage current 漏电流 | Not more than the specified value 不大于规定值 | | | | | |
| | Capacitance change 容量变化 | Within $\pm 20\%$ of the initial value. 在初始值的 $\pm 20\%$ 范围内 | | | | | |
| | Dissipation Factor 损耗角正切值 | Not more than 200% of the specified value 不大于规定值的 200% | | | | | |
| Shelf Life(+ 105°C) 高温贮存 | After leaving capacitors under no load at 105°C for 500 hours, capacitors shall meet the specified value for load life Characteristics listed above 电容器 105°C 在贮存 500 小时后, 测试其性能应满足上表耐久性试验参数要求 | | | | | | |



DIMENSIONS(mm) 外形尺寸



MULTIPLIER FOR RIPPLE CURRENT 纹波电流倍乘因子

Frequency coefficient 频率因子

| Freq(Hz) | 50.60 | 120 | 1K | 10K-100K |
|------------------|-------|-----|------|----------|
| Rated voltage(V) | | | | |
| 6.3-16 | 0.80 | 1.0 | 1.3 | 1.5 |
| 25-35 | 0.80 | 1.0 | 1.2 | 1.2 |
| 50 | 0.80 | 1.0 | 1.15 | 1.2 |

Temperature coefficient 温度因子

| Temperature(°C) | +70 | +85 | +105 |
|-----------------|------|------|------|
| Factor | 2.10 | 1.80 | 1 |

STANDARD RATINGS 额定技术参数

| Cap (µF) | Item 项目 | 4 | | 6.3 | | 10 | | 16 | | 25 | | 35 | | 50 | | | |
|----------|---------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|-------------|-------|----|
| | | Size 尺寸 | Ripple 纹波电流 | Size 尺寸 | Ripple 纹波电流 | Size 尺寸 | Ripple 纹波电流 | Size 尺寸 | Ripple 纹波电流 | Size 尺寸 | Ripple 纹波电流 | Size 尺寸 | Ripple 纹波电流 | Size 尺寸 | Ripple 纹波电流 | | |
| | | ØDxL (mm) | mArms | ØDxL (mm) | mArms | ØDxL (mm) | mArms | ØDxL (mm) | mArms | ØDxL (mm) | mArms | ØDxL (mm) | mArms | ØDxL (mm) | mArms | | |
| 0.1 | | - | - | - | - | - | - | - | - | - | - | - | - | 3x5 | 1 | | |
| | | - | - | - | - | - | - | - | - | - | - | - | - | 4x5 | 1 | | |
| 0.22 | | - | - | - | - | - | - | - | - | - | - | - | - | 3x5 | 2 | | |
| | | - | - | - | - | - | - | - | - | - | - | - | - | 4x5 | 2 | | |
| 0.33 | | - | - | - | - | - | - | - | - | - | - | - | - | 3x5 | 2.8 | | |
| | | - | - | - | - | - | - | - | - | - | - | - | - | 4x5 | 2.8 | | |
| 0.47 | | - | - | - | - | - | - | - | - | - | - | - | - | 3x5 | 4 | | |
| | | - | - | - | - | - | - | - | - | - | - | - | - | 4x5 | 4 | | |
| 1 | | - | - | - | - | - | - | - | - | - | - | - | - | 3x5 | 8 | | |
| | | - | - | - | - | - | - | - | - | - | - | - | - | 4x5 | 8.4 | | |
| 2.2 | | - | - | - | - | - | - | - | - | - | - | 3x5 | 8.4 | 4x5 | 13 | | |
| | | - | - | - | - | - | - | - | - | - | - | 4x5 | 8.4 | | | | |
| 3.3 | | - | - | - | - | - | - | - | - | 3x5 | 13 | 4x5 | 17 | 4x5 | 14 | | |
| | | - | - | - | - | - | - | - | - | 4x5 | 15 | | | | | | |
| 4.7 | | - | - | - | - | - | - | 3x5 | 14 | 4x5 | 15 | 4x5 | 17 | 4x5 | 18 | | |
| | | - | - | - | - | - | - | 4x5 | 15 | | | | | 5x5 | 20 | | |
| 10 | | - | - | 3x5 | 17 | 4x5 | 22 | 4x5 | 23 | 4x5 | 25 | 5x5 | 25 | 5x5 | 25 | 6.3x5 | 28 |
| | | - | - | 4x5 | 20 | | | | | 5x5 | 25 | | | | | | |
| 22 | | 3x5 | 21 | 3x5 | 25 | 3x5 | 25 | 4x5 | 30 | 5x5 | 40 | 6.3x5 | 48 | 8x5 | 75 | | |
| | | 4x5 | 23 | 4x5 | 30 | 4x5 | 30 | | | | | | | | | 5x5 | 44 |
| | | - | - | 5x5 | 31 | 5x5 | 44 | | | | | | | | | 6.3x5 | 50 |
| 33 | | 4x5 | 35 | 5x5 | 35 | 5x5 | 40 | 6.3x5 | 68 | 6.3x5 | 68 | 8x5 | 80 | 8x5 | 90 | | |
| 47 | | 4x5 | 30 | 5x5 | 45 | 6.3x5 | 60 | 6.3x5 | 70 | 8x5 | 95 | 8x5 | 100 | - | - | | |
| 100 | | 5x5 | 60 | 6.3x5 | 85 | 6.3x5 | 95 | 8x5 | 125 | 8x5 | 135 | - | - | - | - | | |
| 220 | | 6.3x5 | 105 | 8x5 | 145 | 8x5 | 155 | 8x5 | 165 | - | - | - | - | - | - | | |
| 330 | | 8x5 | 150 | 8x5 | 175 | - | - | - | - | - | - | - | - | - | - | | |
| 470 | | 8x5 | 180 | - | - | - | - | - | - | - | - | - | - | - | - | | |



CD11XH series

Wide temperature range of $-40\sim+105^{\circ}\text{C}$, with 7mm height
 7mm 高度 宽温度范围 $-40\sim+105^{\circ}\text{C}$ 。

SPECIFICATIONS 特性说明

| Item 项目 | Characteristics 特性 | | | | | | | | | | | | | | | | | | | | |
|--|---|--------------------------|------------|------------------------|---|----------------------------|---|------------------------------|---|--|------|------|------|------|------|--|---|---|---|---|--|
| Operating Temperature Range($^{\circ}\text{C}$) 工作温度范围 | $-40\sim+105$ | | | | | | | | | | | | | | | | | | | | |
| Capacitance Tolerance(20°C , 120Hz) 容量偏差 | $\pm 20\%$ | | | | | | | | | | | | | | | | | | | | |
| Leakage Current 漏电流 | 0.01CV or $3\mu\text{A}$ whichever is greater. (at 20°C , after 2 minutes) C: Nominal Capacitance (μF) V: Rated Voltage (V) 0.01CV 或 $3\mu\text{A}$. 取最大值。(在 20°C , 加电压测试 2 分钟测试) C: 标准容量 (μF) V: 额定工作电压 (V) | | | | | | | | | | | | | | | | | | | | |
| Dissipation Factor(20°C , 120Hz) 损耗角正切值 | <table border="1"> <thead> <tr> <th>Rated Voltage(V) 工作电压</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> </tr> </thead> <tbody> <tr> <td>Tan δ 损耗角正切值</td> <td>0.22</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> </tr> </tbody> </table> | Rated Voltage(V) 工作电压 | 6.3 | 10 | 16 | 25 | 35 | 50 | Tan δ 损耗角正切值 | 0.22 | 0.19 | 0.16 | 0.14 | 0.12 | 0.10 | | | | | | |
| Rated Voltage(V) 工作电压 | 6.3 | 10 | 16 | 25 | 35 | 50 | | | | | | | | | | | | | | | |
| Tan δ 损耗角正切值 | 0.22 | 0.19 | 0.16 | 0.14 | 0.12 | 0.10 | | | | | | | | | | | | | | | |
| Temperature Stability(120Hz) 温度特性 | <table border="1"> <thead> <tr> <th>Rated Voltage(V) 工作电压</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Impedance Ratio 阻抗比</td> <td>Z-25°C/Z+20°C</td> <td colspan="2">3</td> <td colspan="3">2</td> </tr> <tr> <td>Z-40°C/Z+20°C</td> <td>8</td> <td>5</td> <td>4</td> <td colspan="2">3</td> </tr> </tbody> </table> | Rated Voltage(V) 工作电压 | 6.3 | 10 | 16 | 25 | 35 | 50 | Impedance Ratio 阻抗比 | Z- 25°C /Z+ 20°C | 3 | | 2 | | | Z- 40°C /Z+ 20°C | 8 | 5 | 4 | 3 | |
| Rated Voltage(V) 工作电压 | 6.3 | 10 | 16 | 25 | 35 | 50 | | | | | | | | | | | | | | | |
| Impedance Ratio 阻抗比 | Z- 25°C /Z+ 20°C | 3 | | 2 | | | | | | | | | | | | | | | | | |
| | Z- 40°C /Z+ 20°C | 8 | 5 | 4 | 3 | | | | | | | | | | | | | | | | |
| Load Life(+ 105°C) 耐久性 | <table border="1"> <tbody> <tr> <td>Time 时间</td> <td>1000 hours</td> </tr> <tr> <td>Leakage current 漏电流</td> <td>Not more than the specified value 不大于规定值</td> </tr> <tr> <td>Capacitance change 容量变化</td> <td>Within $\pm 20\%$ of the initial value. 在初始值的 $\pm 20\%$ 范围内</td> </tr> <tr> <td>Dissipation Factor 损耗角正切值</td> <td>Not more than 200% of the specified value 不大于规定值的 200%</td> </tr> </tbody> </table> | Time 时间 | 1000 hours | Leakage current 漏电流 | Not more than the specified value 不大于规定值 | Capacitance change 容量变化 | Within $\pm 20\%$ of the initial value. 在初始值的 $\pm 20\%$ 范围内 | Dissipation Factor 损耗角正切值 | Not more than 200% of the specified value 不大于规定值的 200% | | | | | | | | | | | | |
| Time 时间 | 1000 hours | | | | | | | | | | | | | | | | | | | | |
| Leakage current 漏电流 | Not more than the specified value 不大于规定值 | | | | | | | | | | | | | | | | | | | | |
| Capacitance change 容量变化 | Within $\pm 20\%$ of the initial value. 在初始值的 $\pm 20\%$ 范围内 | | | | | | | | | | | | | | | | | | | | |
| Dissipation Factor 损耗角正切值 | Not more than 200% of the specified value 不大于规定值的 200% | | | | | | | | | | | | | | | | | | | | |
| Shelf Life 高温贮存 | After leaving capacitors under no load at 105°C for 500 hours, capacitors shall meet the specified value for load life Characteristics listed above 电容器在 105°C 贮存 500 小时后, 测试其性能应满足上表耐久性试验参数要求 | | | | | | | | | | | | | | | | | | | | |



DIMENSIONS (mm) 外形尺寸

| | | | |
|-----|------|------|------|
| Ø D | 4 | 5 | 6.3 |
| P | 1.5 | 2.0 | 2.5 |
| Ød | 0.45 | 0.45 | 0.45 |

MULTIPLIER FOR RIPPLE CURRENT 纹波电流倍乘因子

Frequency coefficient 频率因子

| Rated voltage(V) | Freq(Hz) | | | |
|------------------|----------|------|------|----------|
| | 50.60 | 120 | 1K | 10K-100K |
| 6.3-16 | 0.68 | 0.72 | 0.92 | 1.0 |
| 25-35 | 0.48 | 0.63 | 0.80 | 1.0 |
| 50 | 0.45 | 0.50 | 0.70 | 1.0 |

Temperature coefficient 温度因子

| Temperature(°C) | +70 | +80 | -105 |
|-----------------|------|------|------|
| Factor | 2.10 | 1.80 | 1 |

STANDARD RATINGS 额定技术参数

| WV (v) | 6.3 | | 10 | | 16 | | 25 | | 35 | | 50 | |
|-----------|-------------|--------------------|------------|--------------------|------------|--------------------|------------|--------------------|------------|--------------------|------------|--------------------|
| | Size 尺寸 | Ripple 纹波 电流 | Size 尺寸 | Ripple 纹波 电流 | Size 尺寸 | Ripple 纹波 电流 | Size 尺寸 | Ripple 纹波 电流 | Size 尺寸 | Ripple 纹波 电流 | Size 尺寸 | Ripple 纹波 电流 |
| | Cap (µF) | ØDxL (mm) | mArms | ØDxL (mm) | mArms | ØDxL (mm) | mArms | ØDxL (mm) | mArms | ØDxL (mm) | mArms | ØDxL (mm) |
| 0.1 | - | - | - | - | - | - | - | - | - | - | 4x7 | 1.0 |
| 0.22 | - | - | - | - | - | - | - | - | - | - | 4x7 | 2.3 |
| 0.33 | - | - | - | - | - | - | - | - | - | - | 4x7 | 3.5 |
| 0.47 | - | - | - | - | - | - | - | - | - | - | 4x7 | 5 |
| 1 | - | - | - | - | - | - | - | - | - | - | 4x7 | 10 |
| 2.2 | - | - | - | - | - | - | - | - | - | - | 4x7 | 19 |
| 3.3 | - | - | - | - | - | - | 4x7 | 21 | 4x7 | 23 | 4x7 | 24 |
| 4.7 | - | - | - | - | - | - | 4x7 | 25 | 4x7 | 25 | 5x7 | 29 |
| 10 | - | - | - | - | 4x7 | 29 | 5x7 | 33 | 5x7 | 36 | 6.3x7 | 44 |
| 22 | 4x7 | 34 | 5x7 | 38 | 5x7 | 44 | 6.3x7 | 51 | 6.3x7 | 60 | 6.3x7 | 60 |
| 33 | 5x7 | 42 | 5x7 | 47 | 6.3x7 | 60 | 6.3x7 | 65 | - | - | - | - |
| 47 | 5x7 | 50 | 6.3x7 | 65 | 6.3x7 | 70 | - | - | - | - | - | - |
| 100 | 6.3x7 | 77 | 6.3x7 | 87 | - | - | - | - | - | - | - | - |

Ripple Current 纹波电流: (mA,105°C/120Hz)



CD110 series

2000 hours standard series for general purposes
85°C 2000小时 通用型标准品

SPECIFICATIONS 特性说明

| Item 项目 | Characteristics 特性 | |
|---|--|---|
| Operating Temperature Range(°C) 工作温度范围 | -40~+85 | |
| Capacitance Tolerance(20°C,120Hz) 容量偏差 | ± 20% | |
| Leakage Current 漏电流 | Rated Voltage(V) 工作电压 | 6.3-100 160-450 |
| | Leakage current 漏电流 | 0.01CV or 3µA whichever is greater.(at 20°C,after 1 minutes) 0.01CV 或 3µA. 取最大值。(at 20°C,加电压测试 1 分钟) |
| C:Nominal capacitance 标称容量 (µF), V:Rated voltage 额定电压 (V) | | |
| Dissipation Factor(20°C,120Hz) 损耗角正切值 | Rated Voltage(V) 工作电压 | 6.3 10 16 25 35 50 63 100 160 200 250 350 400 450 |
| | Tan δ 损耗角正切值 | 0.24 0.20 0.16 0.14 0.12 0.10 0.09 0.08 0.15 0.15 0.15 0.15 0.20 0.23 |
| When nominal capacitance is over 1000µF tan δ shall be added 0.02 to the listed value with increase of every 1000µF 当容量大于 1000µF 时, 每增加 1000µF, 表中相应的损耗值也增加 0.02 | | |
| Temperature Stability(120Hz) 温度特性 | Rated Voltage(V) 工作电压 | 6.3 10 16 25 35 50 63 100 160 200 250 350 400 450 |
| | Impedance Ratio 损耗角正切值 | Z-25°C/Z+20°C 4 3 2 3 6 Z-40°C/Z+20°C 8 6 4 3 8 - |
| Load Life (85°C) 耐久性 | Time 时间 | 2000 hours |
| | Leakage current 漏电流 | Not more than the specified value 不大于规定值 |
| | Capacitance change 容量变化 | Within ± 20% of the initial value. 在初始值的 ± 20% 范围内 |
| | Dissipation Factor 损耗角正切值 | Not more than 200% of the specified value 不大于规定值的 200% |
| Shelf Life (85°C) 高温贮存 | After leaving capacitors under no load at 85°C for 1000 hours, capacitors shall meet the specified value for load life Characteristics listed above 电容器在 85°C 在贮存 1000 小时后, 测试其性能能满足上表耐久性试验参数要求 | |

DIMENSIONS (mm) 外形尺寸



| | | | | | | | |
|-----|-------|-----|-----|-----|------|-----|-----|
| ∅ D | 5 | 6.3 | 8 | 10 | 12.5 | 16 | 18 |
| P | 2.0 | 2.5 | 3.5 | 5.0 | 5.0 | 7.5 | 7.5 |
| ∅d | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.8 | 0.8 |
| α | ~100V | 1.0 | 1.0 | 1.0 | 1.5 | 1.5 | 1.5 |
| | 160V~ | - | 1.5 | 1.5 | 2.0 | 2.0 | 2.0 |
| β | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |

MULTIPLIER FOR RIPPLE CURRENT 纹波电流倍乘因子

Frequency coefficient 频率因子

| Rated voltage(V) | Freq(Hz) CV(µF.WV) | 50.60 | 120 | 1K | 10K | 100K |
|------------------|-----------------------|-------|-----|-----|-----|------|
| 6.3-16 | ALL CV value | 0.80 | 1 | 1.1 | 1.2 | 1.2 |
| 25-35 | 1000 | 0.80 | 1 | 1.5 | 1.7 | 1.7 |
| | 1000< | 0.80 | 1 | 1.2 | 1.3 | 1.3 |
| 50-100 | 1000 | 0.80 | 1 | 1.6 | 1.9 | 1.9 |
| | 1000< | 0.80 | 1 | 1.2 | 1.3 | 1.3 |
| 160-450 | ALL CV value | 0.80 | 1 | 1.3 | 1.5 | 1.6 |

Temperature coefficient 温度因子

| | | |
|-----------------|------|-----|
| Temperature(°C) | +70 | +85 |
| Factor | 1.35 | 1 |



STANDARD RATINGS 额定技术参数

| WV | 6.3 | | 10 | | 16 | | 25 | | 35 | | 50 | | 63 | | 100 | |
|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | Size 尺寸 | Ripple 纹波 电流 | Size 尺寸 | Ripple 纹波 电流 | Size 尺寸 | Ripple 纹波 电流 | Size 尺寸 | Ripple 纹波 电流 | Size 尺寸 | Ripple 纹波 电流 | Size 尺寸 | Ripple 纹波 电流 | Size 尺寸 | Ripple 纹波 电流 | Size 尺寸 | Ripple 纹波 电流 |
| Cap (μ F) | ϕ DxL (mm) | mArms | ϕ DxL (mm) | mArms | ϕ DxL (mm) | mArms | ϕ DxL (mm) | mArms | ϕ DxL (mm) | mArms | ϕ DxL (mm) | mArms | ϕ DxL (mm) | mArms | ϕ DxL (mm) | mArms |
| 0.1 | - | - | - | - | - | - | - | - | - | - | 5x11 | 5 | - | - | 5x11 | 5 |
| 0.22 | - | - | - | - | - | - | - | - | - | - | 5x11 | 7 | - | - | 5x11 | 8 |
| 0.33 | - | - | - | - | - | - | - | - | - | - | 5x11 | 9 | - | - | 5x11 | 10 |
| 0.47 | - | - | - | - | - | - | - | - | - | - | 5x11 | 10 | - | - | 5x11 | 10 |
| 1 | - | - | - | - | - | - | - | - | - | - | 5x11 | 15 | - | - | 5x11 | 15 |
| 2.2 | - | - | - | - | - | - | - | - | - | - | 5x11 | 20 | - | - | 5x11 | 25 |
| 3.3 | - | - | - | - | - | - | - | - | - | - | 5x11 | 25 | - | - | 5x11 | 30 |
| 4.7 | - | - | - | - | - | - | 5x11 | 25 | 5x11 | 30 | 5x11 | 30 | 5x11 | 35 | 5x11 | 35 |
| 10 | - | - | - | - | 5x11 | 40 | 5x11 | 40 | 5x11 | 45 | 5x11 | 45 | 5x11 | 50 | 6.3x12 | 60 |
| 22 | - | - | 5x11 | 50 | 5x11 | 55 | 5x11 | 60 | 5x11 | 60 | 5x12 | 70 | 6.3x11 | 85 | 8x11.5 | 110 |
| 33 | 5x11 | 60 | 5x11 | 65 | 5x11 | 70 | 5x11 | 70 | 5x12 | 80 | 6.3x11 | 100 | 6.3x11 | 100 | 10x12.5 | 160 |
| 47 | 5x11 | 70 | 5x11 | 75 | 5x11 | 80 | 5x12 | 90 | 6.3x12 | 110 | 6.3x12 | 120 | 8x11.5 | 150 | 10x16 | 210 |
| 100 | 5x11 | 100 | 5x11 | 110 | 5x11 | 120 | 6.3x12 | 150 | 6x12 | 180 | 8x11.5 | 210 | 10x12.5 | 260 | 12.5x20 | 380 |
| 220 | 5x11 | 180 | 5x12 | 180 | 6.3x11 | 240 | 6x12 | 240 | 8x14 | 300 | 10x16 | 400 | 10x20 | 460 | 16x25 | 720 |
| 330 | 6.3x11 | 210 | 8x11.5 | 270 | 8x11.5 | 300 | 10x12.5 | 380 | 10x16 | 450 | 10x20 | 540 | 12.5x20 | 650 | 16x25 | 880 |
| 470 | 8x11.5 | 300 | 6x12 | 300 | 8x12 | 420 | 8x12 | 450 | 10x15 | 530 | 12.5x20 | 740 | 12.5x25 | 850 | 16x30 | 1150 |
| 1000 | 8x16 | 530 | 8x11.5 | 330 | 8x16 | 700 | 8x14 | 480 | 10x16 | 580 | 16x25 | 1350 | 16x30 | 1550 | - | - |
| 2200 | 10x20 | 990 | 8x12 | 600 | 10x16 | 740 | 10x20 | 950 | 12.5x20 | 1050 | 16x25 | 1750 | 18x30 | 2600 | - | - |
| 3300 | 12.5x20 | 1150 | 8x14 | 610 | 12.5x20 | 1000 | 13x22 | 1300 | 16x25 | 1700 | 18x30 | 2100 | 18x35 | 2600 | - | - |
| 4700 | 12x25 | 1700 | 10x16 | 620 | 16x25 | 1650 | 16x22 | 1700 | 16x30 | 2250 | - | - | - | - | - | - |
| 6800 | 16x25 | 1900 | 16x25 | 2200 | 16x30 | 2600 | 16x25 | 1900 | - | - | - | - | - | - | - | - |
| 10000 | 16x25 | 2250 | 16x30 | 2750 | - | - | - | - | - | - | - | - | - | - | - | - |
| 15000 | 18x35.5 | 2900 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

| WV (v) | 160 | | 200 | | 250 | | 350 | | 400 | | 450 | |
|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | Size 尺寸 | Ripple 纹波 电流 | Size 尺寸 | Ripple 纹波 电流 | Size 尺寸 | Ripple 纹波 电流 | Size 尺寸 | Ripple 纹波 电流 | Size 尺寸 | Ripple 纹波 电流 | Size 尺寸 | Ripple 纹波 电流 |
| Cap (μ F) | ϕ DxL (mm) | mArms | ϕ DxL (mm) | mArms | ϕ DxL (mm) | mArms | ϕ DxL (mm) | mArms | ϕ DxL (mm) | mArms | ϕ DxL (mm) | mArms |
| 0.47 | 6.3x11 | 10 | 6.3x11 | 10 | 6.3x11 | 10 | 6.3x11 | 10 | - | - | - | - |
| 1 | 6.3x11 | 15 | 6.3x11 | 15 | 6.3x11 | 15 | 8x11.5 | 15 | 8x11.5 | 15 | 10x12.5 | 15 |
| 2.2 | 6.3x11 | 20 | 6.3x11 | 20 | 8x11.5 | 25 | 8x12.5 | 30 | 8x12.5 | 20 | 10x16 | 25 |
| 3.3 | 8x11.5 | 35 | 8x11.5 | 35 | 8x12.5 | 35 | 8x12.5 | 35 | 8x12 | 30 | 10x20 | 35 |
| 4.7 | 8x11.5 | 40 | 8x12.5 | 50 | 8x12.5 | 40 | 10x16 | 45 | 10x16 | 35 | 12.5x20 | 45 |
| 10 | 10x12.5 | 70 | 10x16 | 75 | 10x16 | 75 | 10x20 | 75 | 10x20 | 45 | 12.5x25 | 75 |
| 22 | 10x16 | 120 | 10x20 | 120 | 12.5x20 | 140 | 12.5x20 | 140 | 16x25 | 140 | 16x31.5 | 140 |
| 33 | 10x20 | 180 | 12.5x20 | 190 | 12.5x20 | 170 | 12.5x25 | 200 | 16x31.5 | 190 | 18x35.5 | 200 |
| 47 | 12.5x20 | 230 | 12.5x25 | 220 | 16x25 | 240 | 16x25 | 260 | 18x35.5 | 260 | - | - |
| 100 | 16x25 | 400 | 16x25 | 430 | 16x30 | 440 | - | - | - | - | - | - |
| 220 | 16x30 | 730 | 18x30 | 760 | - | - | - | - | - | - | - | - |

Ripple Current 纹波电流: (mA,85°C/120Hz)



CD81 series

105°C 2000hours wide temperature

low leakage current

105°C 2000 小时宽温品，低漏品

SPECIFICATIONS 特性说明

| Item 项目 | Characteristics 特性 | | | | | | | | | | | | | | | | | | | | |
|---|---|--------------------------|--|----------------------------|---|------------------------------|---|------|------|-----|-----|------------------------|------|------|------|------|------|------|------|------|------|
| Operating Temperature Range(°C) 工作温度范围 | -40~+105 | | | | | | | | | | | | | | | | | | | | |
| Capacitance Tolerance(20°C,120Hz) 容量偏差 | ± 20% | | | | | | | | | | | | | | | | | | | | |
| Leakage Current 漏电流 | $V \leq 100V$ 0.01CV+ 3 μA whichever is greater(at 20°C,after 1 minutes) 0.01CV 或 3 μA ,取最大值 (1 分钟,20°C) $V \geq 160V$ 0.03CV+ 10 μA whichever is greater(at 20°C,after 1 minutes) 0.03CV 或 10 μA ,取最大值 (1 分钟,20°C) C:Nominal capacitance 标称容量 (μF), V:Rated voltage 额定电压 (V) | | | | | | | | | | | | | | | | | | | | |
| Dissipation Factor(20°C,120Hz) 损耗角正切值 | <table border="1"> <thead> <tr> <th>Rated Voltage(V) 工作电压</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> <th>160</th> <th>250</th> </tr> </thead> <tbody> <tr> <td>Tan δ 损耗角正切值</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.09</td> <td>0.08</td> <td>0.12</td> <td>0.12</td> </tr> </tbody> </table> <p>When nominal capacitance is over 1000μFTan shall be added 0.02 to the listed value with increase of every 1000μF 当容量大于 1000μF 时，每增加 1000μF，表中相应的损耗值也增加 0.02</p> | Rated Voltage(V) 工作电压 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160 | 250 | Tan δ 损耗角正切值 | 0.19 | 0.16 | 0.14 | 0.12 | 0.10 | 0.09 | 0.08 | 0.12 | 0.12 |
| Rated Voltage(V) 工作电压 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160 | 250 | | | | | | | | | | | | |
| Tan δ 损耗角正切值 | 0.19 | 0.16 | 0.14 | 0.12 | 0.10 | 0.09 | 0.08 | 0.12 | 0.12 | | | | | | | | | | | | |
| Temperature Stability(120Hz) 温度稳定性 | <p>Impedance ratio at 100Hz or 120Hz shall not exceed the values given in below table. 在 100Hz 或 120Hz 下的阻抗比不超过表中给出的值</p> <table border="1"> <thead> <tr> <th>Rated Voltage(V) 工作电压</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> <th>160</th> <th>250</th> </tr> </thead> <tbody> <tr> <td>Z-40°C/Z+20°C</td> <td>5</td> <td>5</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> </tr> </tbody> </table> | Rated Voltage(V) 工作电压 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160 | 250 | Z-40°C/Z+20°C | 5 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Rated Voltage(V) 工作电压 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160 | 250 | | | | | | | | | | | | |
| Z-40°C/Z+20°C | 5 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | | | | | | | | | | | |
| Load Life (+105°C) 耐久性 | <p>After 200hours application of rated voltage at 105°C,the capacitors shall meet follow limits. 在 105°C 条件下，施加额定电压 2000 小时，电容器符合下列要求</p> <table border="1"> <tbody> <tr> <td>Leakage current 漏电流</td> <td>Not more than the specified value 不大于规定值</td> </tr> <tr> <td>Capacitance change 容量变化</td> <td>Within ± 20% of the initial value. 在初始值的 ± 20% 范围内</td> </tr> <tr> <td>Dissipation Factor 损耗角正切值</td> <td>Not more than 200%of the specified value 不大于规定值的两倍</td> </tr> </tbody> </table> | Leakage current 漏电流 | Not more than the specified value 不大于规定值 | Capacitance change 容量变化 | Within ± 20% of the initial value. 在初始值的 ± 20% 范围内 | Dissipation Factor 损耗角正切值 | Not more than 200%of the specified value 不大于规定值的两倍 | | | | | | | | | | | | | | |
| Leakage current 漏电流 | Not more than the specified value 不大于规定值 | | | | | | | | | | | | | | | | | | | | |
| Capacitance change 容量变化 | Within ± 20% of the initial value. 在初始值的 ± 20% 范围内 | | | | | | | | | | | | | | | | | | | | |
| Dissipation Factor 损耗角正切值 | Not more than 200%of the specified value 不大于规定值的两倍 | | | | | | | | | | | | | | | | | | | | |
| Shelf Life (+105°C) 高温贮存 | <p>1000hours. No voltage application, the capacitors shall meet follow limits. 在 105°C 条件下，无负荷贮存 1000 小时，电容器符合下列要求</p> <table border="1"> <tbody> <tr> <td>Leakage current 漏电流</td> <td>Not more than 200% of the specified 不大于规定值的两倍</td> </tr> <tr> <td>Capacitance change 容量变化</td> <td>Within ± 20% of the initial value. 在初始值的 ± 20% 范围内</td> </tr> <tr> <td>Dissipation Factor 损耗角正切值</td> <td>Not more than 200%of the specified value 不大于规定值的两倍</td> </tr> </tbody> </table> | Leakage current 漏电流 | Not more than 200% of the specified 不大于规定值的两倍 | Capacitance change 容量变化 | Within ± 20% of the initial value. 在初始值的 ± 20% 范围内 | Dissipation Factor 损耗角正切值 | Not more than 200%of the specified value 不大于规定值的两倍 | | | | | | | | | | | | | | |
| Leakage current 漏电流 | Not more than 200% of the specified 不大于规定值的两倍 | | | | | | | | | | | | | | | | | | | | |
| Capacitance change 容量变化 | Within ± 20% of the initial value. 在初始值的 ± 20% 范围内 | | | | | | | | | | | | | | | | | | | | |
| Dissipation Factor 损耗角正切值 | Not more than 200%of the specified value 不大于规定值的两倍 | | | | | | | | | | | | | | | | | | | | |



DIMENSIONS(mm) 外形尺寸



| | | | | | | | |
|-----|-----|-----|-----|-----|------|-----|-----|
| ∅ D | 5 | 6.3 | 8 | 10 | 12.5 | 16 | 18 |
| P | 2.0 | 2.5 | 3.5 | 5.0 | 5.0 | 7.5 | 7.5 |
| ∅d | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.8 | 0.8 |
| α | 1.0 | 1.0 | 1.0 | 1.5 | 1.5 | 1.5 | 1.5 |

MULTIPLIER FOR RIPPLE CURRENT 纹波电流倍乘因子

Frequency coefficient 频率因子

| Rated voltage(V) | Freq(Hz) CV(μF.WV) | 50.60 | 120 | 1K | 10K | 100K |
|------------------|-----------------------|-------|-----|-----|-----|------|
| 10-16 | ALL CV value | 0.80 | 1 | 1.1 | 1.2 | 1.2 |
| 25-35 | 1000 | 0.80 | 1 | 1.5 | 1.7 | 1.7 |
| | 1000< | 0.80 | 1 | 1.2 | 1.3 | 1.3 |
| 50-160 | 1000 | 0.80 | 1 | 1.6 | 1.9 | 1.9 |
| | 1000< | 0.80 | 1 | 1.2 | 1.3 | 1.3 |

Temperature coefficient 温度因子

| | | |
|-----------------|------|------|
| Temperature(°C) | +85 | +105 |
| Factor | 1.35 | 1 |

STANDARD RATINGS 额定技术参数

Ripple Current 纹波电流: (mA,105°C/120Hz)

| WV | 10 | | 16 | | 25 | | 35 | | 50 | | 63 | | 100 | | 160 | | 250 | | |
|-------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|-----|
| | Size 尺寸 | Ripple 纹波 电流 | Size 尺寸 | Ripple 纹波 电流 | Size 尺寸 | Ripple 纹波 电流 | Size 尺寸 | Ripple 纹波 电流 | Size 尺寸 | Ripple 纹波 电流 | Size 尺寸 | Ripple 纹波 电流 | Size 尺寸 | Ripple 纹波 电流 | Size 尺寸 | Ripple 纹波 电流 | Size 尺寸 | Ripple 纹波 电流 | |
| Cap (μF) | ∅DxL (mm) | mArms | ∅DxL (mm) | mArms | ∅DxL (mm) | mArms | ∅DxL (mm) | mArms | ∅DxL (mm) | mArms | ∅DxL (mm) | mArms | ∅DxL (mm) | mArms | ∅DxL (mm) | mArms | ∅DxL (mm) | mArms | |
| 0.1 | | | | | | | | | 5x11 | 3 | | | | | 5x11 | 2 | | | |
| 0.22 | | | | | | | | | 5x11 | 4 | | | | | 5x11 | 3 | | | |
| 0.33 | | | | | | | | | 5x11 | 5 | | | | | 5x11 | 3 | | | |
| 0.47 | | | | | | | | | 5x11 | 6 | | | 5x11 | 6 | 5x11 | 4 | | | |
| 0.68 | | | | | | | | | 5x11 | 7 | | | 5x11 | 7 | 5x11 | 5 | | | |
| 1 | | | | | | | | | 5x11 | 8 | | | 5x11 | 9 | 5x11 | 6 | 6.3x11 | 15 | |
| 1.5 | | | | | | | | | 5x11 | 10 | | | 5x11 | 11 | 5x11 | 7 | | | |
| 2.2 | | | | | | | | | 5x11 | 12 | | | 5x11 | 13 | 6.3x11 | 10 | 6.3x12 | 25 | |
| 3.3 | | | | | | | | | 5x11 | 15 | | | 5x11 | 16 | 6.3x11 | 12 | 8x12 | 35 | |
| 4.7 | | | | | | | | | 5x11 | 17 | 5x11 | 18 | 5x11 | 20 | 8x12 | 17 | 8x12 | 40 | |
| 6.8 | | | | | | | | | 5x11 | 21 | 5x11 | 22 | 6.3x11 | 26 | 8x12 | 21 | | | |
| 10 | | | | | | | | | 5x11 | 25 | 6.3x11 | 27 | 6.3x12 | 32 | 10x12 | 28 | 10x16 | 75 | |
| 15 | | | | | | | | | 5x11 | 31 | 6.3x11 | 37 | 8x12 | 46 | 10x16 | 40 | | | |
| 22 | | | | | | | | 5x11 | 35 | 5x12 | 38 | 6.3x11 | 45 | 10x12 | 62 | 10x16 | 54 | 12.5x20 | 140 |
| 33 | | | | | 5x11 | 39 | 5x11 | 42 | 6.3x11 | 52 | 6.3x12 | 55 | 10x16 | 88 | 12.5x20 | 75 | 12.5x20 | 170 | |
| 47 | | | 5x11 | 44 | 5x12 | 47 | 6.3x11 | 57 | 6.3x12 | 62 | 8x12 | 77 | 10x16 | 105 | 12.5x20 | 90 | 12.5x25 | 240 | |
| 68 | | | 5x11 | 53 | 6.3x11 | 63 | 6.3x11 | 68 | 8x12 | 88 | 10x12 | 104 | 10x20 | 142 | 12.5x25 | 120 | | | |
| 100 | 5x11 | 57 | 6.3x11 | 72 | 6.3x12 | 76 | 8x12 | 97 | 8x12 | 107 | 10x12 | 126 | 12.5x20 | 196 | 16x25 | 162 | 16x30 | 440 | |
| 150 | 6.3x11 | 70 | 6.3x11 | 88 | 8x12 | 110 | 10x12 | 133 | 10x12 | 146 | 10x16 | 178 | 12.5x20 | 340 | | | | | |
| 220 | 6.3x11 | 95 | 6.3x12 | 125 | 8x12 | 134 | 10x12 | 161 | 10x16 | 204 | 10x20 | 274 | 16x25 | 361 | | | | | |
| 330 | 8x12 | 137 | 8x12 | 153 | 10x12 | 183 | 10x16 | 228 | 10x20 | 279 | 12.5x20 | 336 | 16x25 | 442 | | | | | |
| 470 | 8x12 | 163 | 8x12 | 204 | 10x16 | 252 | 10x16 | 304 | 12.5x20 | 380 | 12.5x12 | 448 | 16x30 | 577 | | | | | |
| 680 | 10x12 | 220 | 10x16 | 283 | 10x20 | 339 | 12.5x20 | 417 | 12.5x25 | 511 | 16x25 | 598 | | | | | | | |
| 1000 | 10x16 | 307 | 10x16 | 384 | 10x20 | 468 | 12.5x20 | 506 | 16x25 | 688 | 16x30 | 794 | | | | | | | |
| 1500 | 10x20 | 421 | 10x20 | 537 | 12.5x20 | 574 | 16x25 | 769 | 16x30 | 922 | | | | | | | | | |
| 2200 | 12.5x20 | 554 | 12.5x20 | 813 | 12.5x25 | 806 | 16x25 | 944 | 18x35 | 1168 | | | | | | | | | |
| 3300 | 12.5x20 | 650 | 12.5x25 | 883 | 16x25 | 1020 | 16x30 | 1239 | | | | | | | | | | | |
| 4700 | 16x25 | 924 | 16x25 | 1101 | 16x30 | 1323 | | | | | | | | | | | | | |
| 6800 | 16x30 | 1134 | | | | | | | | | | | | | | | | | |



CD117H series

Load life of 1000 hours at 105°C,
high and stable quality,
low leakage current and low cost,
for general consumer electronic products application.
105°C 1000 小时负荷寿命，高稳定性质量，低漏电流、低成本，适用于普通电子消费产品。

SPECIFICATIONS 特性说明

| Item 项目 | Characteristics 特性 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--------------------------|---|----------------------------|---|------------------------------|---|------|------|----|-----|------------------------|---------------|------|------|------|------|------|------|------|------|---------------|-------|------|------|------|------|------|------|------|------|
| Operating Temperature Range(°C) 工作温度范围 | -40~+105°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rated Voltage Range(V) 额定电压范围 | 6.3~100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Capacitance Tolerance(20°C,120Hz) 容量偏差 | ± 10% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leakage Current 漏电流 | 0.006CV or 0.5 μA whichever is greater(at 25°C, after 1 minutes) 0.006CV 或 0.5 μA, 取最大值 (1分钟, 25°C) 0.002CV or 0.3 μA whichever is greater(at 25°C, after 1 minutes) 0.002CV 或 0.3 μA, 取最大值 (2分钟, 25°C) C:Nominal capacitance 标称容量 (μF), V:Rated voltage 额定电压 (V) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dissipation Factor(20°C,120Hz) 损耗角正切值 | When nominal capacitance is over 1000μF tan shall be added 0.02 to the listed value with increase of every 1000μF 当容量大于 1000μF 时，每增加 1000μF，表中相应的损耗值也增加 0.02 <table border="1" style="margin-left: 20px;"> <thead> <tr> <th colspan="2">Rated Voltage(V) 额定电压</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> </tr> </thead> <tbody> <tr> <td>Tan δ 损耗角正切值</td> <td>10X12.5</td> <td>0.18</td> <td>0.15</td> <td>0.12</td> <td>0.08</td> <td>0.08</td> <td>0.08</td> <td>0.07</td> <td>0.07</td> </tr> <tr> <td></td> <td>10X16</td> <td>0.21</td> <td>0.21</td> <td>0.21</td> <td>0.21</td> <td>0.21</td> <td>0.21</td> <td>0.21</td> <td>0.21</td> </tr> </tbody> </table> | Rated Voltage(V) 额定电压 | | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | Tan δ 损耗角正切值 | 10X12.5 | 0.18 | 0.15 | 0.12 | 0.08 | 0.08 | 0.08 | 0.07 | 0.07 | | 10X16 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 |
| Rated Voltage(V) 额定电压 | | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | | | | | | | | | | | | | | | | | | | | | | |
| Tan δ 损耗角正切值 | 10X12.5 | 0.18 | 0.15 | 0.12 | 0.08 | 0.08 | 0.08 | 0.07 | 0.07 | | | | | | | | | | | | | | | | | | | | | | |
| | 10X16 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | | | | | | | | | | | | | | | | | | | | | | |
| Temperature Stability(120Hz) 温度稳定性 | <table border="1" style="margin-left: 20px;"> <thead> <tr> <th colspan="2">Rated Voltage(V) 额定电压</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Impedance ratio 阻抗比</td> <td>Z-25°C/Z+20°C</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z-40°C/Z+20°C</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </tbody> </table> | Rated Voltage(V) 额定电压 | | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | Impedance ratio 阻抗比 | Z-25°C/Z+20°C | 4 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | Z-40°C/Z+20°C | 8 | 6 | 4 | 3 | 3 | 3 | 3 | 3 | |
| Rated Voltage(V) 额定电压 | | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | | | | | | | | | | | | | | | | | | | | | | |
| Impedance ratio 阻抗比 | Z-25°C/Z+20°C | 4 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | | | | | | | | | | | | | | | | | | | | | | |
| | Z-40°C/Z+20°C | 8 | 6 | 4 | 3 | 3 | 3 | 3 | 3 | | | | | | | | | | | | | | | | | | | | | | |
| Load Life (+105°C) 耐久性 | After an application of D.C. Bias voltage plus the rated ripple current for 2000 hours at 105°C, the capacitors meet the characteristic requirements show on the below table. 在 105°C 条件下，施加额定电压和额定纹波电流 2000 小时，电容器符合下列特性要求 <table border="1" style="margin-left: 20px;"> <tbody> <tr> <td>Leakage current 漏电流</td> <td>Not more than the specified value 不超过规定值</td> </tr> <tr> <td>Capacitance change 容量变化</td> <td>Within ± 20% of the initial value. 在初始值的 ± 20% 范围内</td> </tr> <tr> <td>Dissipation Factor 损耗角正切值</td> <td>Not more than 200% of the specified value 不超过规定值的 200%</td> </tr> </tbody> </table> | Leakage current 漏电流 | Not more than the specified value 不超过规定值 | Capacitance change 容量变化 | Within ± 20% of the initial value. 在初始值的 ± 20% 范围内 | Dissipation Factor 损耗角正切值 | Not more than 200% of the specified value 不超过规定值的 200% | | | | | | | | | | | | | | | | | | | | | | | | |
| Leakage current 漏电流 | Not more than the specified value 不超过规定值 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Capacitance change 容量变化 | Within ± 20% of the initial value. 在初始值的 ± 20% 范围内 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dissipation Factor 损耗角正切值 | Not more than 200% of the specified value 不超过规定值的 200% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Shelf Life (+105°C) 高温贮存 | 1000 hours. No voltage applied. After test: UR to be applied for 30 minutes, 24 to 48 hours before measurement. 1000 小时，试验后断电 30 分钟，测量前 24 到 48 小时 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



DIMENSIONS(mm) 外形尺寸

| | | | | | | | |
|----|-----|-----|-----|----------------------|------|-----|-----|
| ∅D | 5 | 6.3 | 8 | 10 | 12.5 | 16 | 18 |
| P | 2.0 | 2.5 | 3.5 | 5.0 | 5.0 | 7.5 | 7.5 |
| ∅d | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.8 | 0.8 |
| α | 1.0 | 1.0 | 1.0 | L<16:1.0 L≥16:2.0 | | | |

MULTIPLIER FOR RIPPLE CURRENT 纹波电流倍乘因子

Frequency coefficient 频率因子

| Rated voltage(V) | Freq(Hz) CV(μF.WV) | 50 | 60 | 120 | 1K | 10K |
|------------------|-----------------------|------|------|-----|------|------|
| 6.3~100 | 0.1~47 | 0.75 | 0.75 | 1.0 | 1.57 | 2.0 |
| | 100~47 | 0.80 | 0.80 | 1.0 | 1.34 | 1.5 |
| | 1000~2200 | 0.85 | 0.85 | 1.0 | 1.13 | 1.15 |

Temperature coefficient 温度因子

| Temperature(°C) | +70 | +85 | +105 |
|------------------|-----|-----|------|
| Rated Voltage(V) | | | |
| 6.3~100 | 2.0 | 1.7 | 1.0 |

STANDARD RATINGS 额定技术参数

| WV (v) | 6.3 | | 10 | | 16 | | 25 | | 35 | | 50 | | 63 | | 100 | |
|-------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|
| | Size 尺寸 | Ripple 纹波 电流 | Size 尺寸 | Ripple 纹波 电流 | Size 尺寸 | Ripple 纹波 电流 | Size 尺寸 | Ripple 纹波 电流 | Size 尺寸 | Ripple 纹波 电流 | Size 尺寸 | Ripple 纹波 电流 | Size 尺寸 | Ripple 纹波 电流 | Size 尺寸 | Ripple 纹波 电流 |
| Cap (μF) | ∅DxL (mm) | mArms | ∅DxL (mm) | mArms | ∅DxL (mm) | mArms | ∅DxL (mm) | mArms | ∅DxL (mm) | mArms | ∅DxL (mm) | mArms | ∅DxL (mm) | mArms | ∅DxL (mm) | mArms |
| 0.47 | - | - | - | - | - | - | - | - | - | - | 5x11 | 5.0 | - | - | 5x11 | 10.1 |
| 1.0 | - | - | - | - | - | - | - | - | - | - | 5x11 | 10.7 | - | - | 5x11 | 19 |
| 2.2 | - | - | - | - | - | - | - | - | - | - | 5x11 | 23 | - | - | 5x11 | 28 |
| 3.3 | - | - | - | - | - | - | - | - | - | - | 5x11 | 40 | - | - | 5x11 | 45 |
| 4.7 | - | - | - | - | - | - | 5x11 | 45 | - | - | 5x11 | 45 | - | - | 5x11 | 50 |
| 10 | - | - | - | - | 5x11 | 55 | 5x11 | 70 | - | - | 5x11 | 70 | 6.3x11 | 75 | 8x11.5 | 90 |
| 22 | - | - | - | - | 5x11 | 85 | 5x11 | 100 | 6.3x11 | 110 | 6.3x11 | 110 | 8x11.5 | 115 | 10x12.5 | 136 |
| 33 | - | - | - | - | 5x11 | 100 | 6.3x11 | 140 | 6.3x11 | 140 | 8x11.5 | 165 | 8x11.5 | 170 | 10x18 | 180 |
| 47 | - | - | 5x11 | 110 | 6.3x11 | 140 | 6.3x11 | 170 | 8x11.5 | 190 | 8x11.5 | 190 | 10x12.5 | 200 | 10x20 | 220 |
| 100 | - | - | 6.3x11 | 180 | 8x11.5 | 230 | 8x11.5 | 280 | 10x12.5 | 300 | 10x16 | 320 | 10x20 | 330 | 12.5x20 | 370 |
| 220 | - | - | 8x11.5 | 310 | 10x12.5 | 370 | 10x16 | 400 | 10x20 | 440 | 12.5x20 | 490 | 12.5x20 | 550 | 16x25 | 580 |
| 330 | - | - | 10x12.5 | 400 | 10x16 | 420 | 10x20 | 490 | 12.5x20 | 550 | 12.5x20 | 600 | 12.5x25 | 710 | 16x31.5 | 730 |
| 470 | 10x12.5 | 390 | 10x16 | 530 | 10x20 | 550 | 11.5x20 | 660 | 12.5x25 | 680 | 16x25 | 760 | 16x25 | 850 | 18x35.5 | 910 |
| 1000 | 10x20 | 650 | 12.5x20 | 810 | 12.5x25 | 910 | 16x25 | 1010 | 16x25 | 1100 | 16x31.5 | 1140 | 16x35.5 | 1330 | - | - |
| 2200 | 12.5x25 | 1060 | 16x25 | 1200 | 16x25 | 1300 | 16x35.5 | 1440 | 18x35.5 | 1580 | - | - | - | - | - | - |

Ripple Current 纹波电流: **20KHz**)



CD288Z series

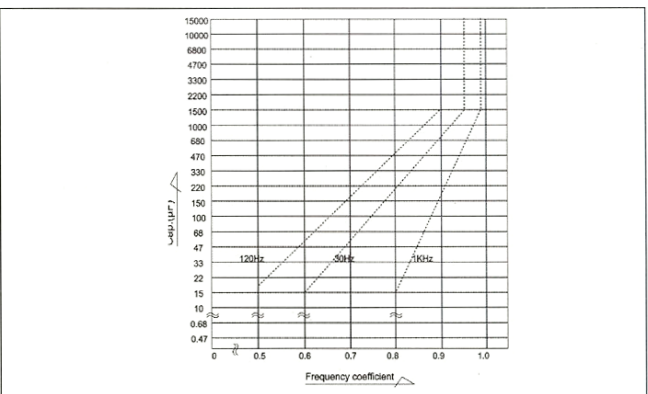
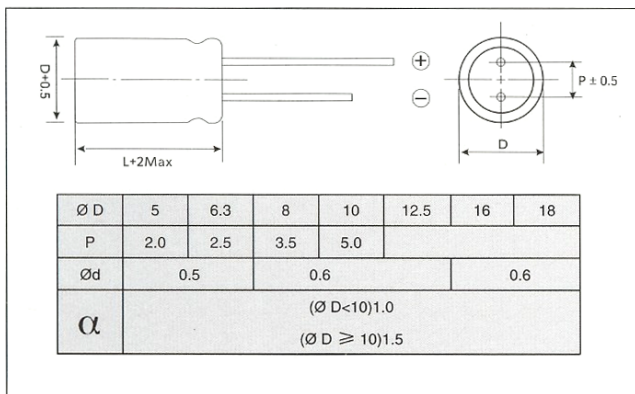
High Frequency, Low impedance and high reliability
withstanding 2000 hour load life at + 105 °C
高频、低阻抗、高可靠性, 105 °C 2000 小时
Suitable for switching power supplies,
UPS power supplies power sources, etc.
适合开关电源, UPS 电源, 电源供应器等

SPECIFICATIONS 特性说明

| Item 项目 | Characteristics 特性 | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|----------------------------|---|------------------------------|--|----|------------------------|---------------|------|------|------|------|------|---|---------------|---|---|---|---|---|---|
| Operating Temperature Range(°C) 工作温度范围 | -40~+105 | | | | | | | | | | | | | | | | | | | | | | |
| Rated Voltage Range(V) 额定电压范围 | 6.3~50 | | | | | | | | | | | | | | | | | | | | | | |
| Capacitance Tolerance(20°C,120Hz) 容量偏差 | ± 20% | | | | | | | | | | | | | | | | | | | | | | |
| Leakage Current 漏电流 | 0.01CV or 3 μA whichever is greater.(at 20°C after 2 minutes. 0.01CV or 3 μA 取最大值(2 分钟, 20°C) C:Nominal capacitance 标称容量 (μF) V:Rated voltage 额定电压 (V) | | | | | | | | | | | | | | | | | | | | | | |
| Dissipation Factor(20°C,120Hz) 损耗角正切值 | When nominal capacitance is over 1000μFtan shall be added 0.02 to the listed value with increase of every 1000μF 当容量大于 1000μF 时, 每增加 1000μF, 表中相应的损耗值也增加 0.02 | | | | | | | | | | | | | | | | | | | | | | |
| | <table border="1"> <tr> <td>Rated Voltage(V) 额定电压</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td>Tan δ 损耗角正切值</td> <td>0.22</td> <td>0.18</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.08</td> </tr> </table> | Rated Voltage(V) 额定电压 | 6.3 | 10 | 16 | 25 | 35 | 50 | Tan δ 损耗角正切值 | 0.22 | 0.18 | 0.14 | 0.12 | 0.10 | 0.08 | | | | | | | | |
| Rated Voltage(V) 额定电压 | 6.3 | 10 | 16 | 25 | 35 | 50 | | | | | | | | | | | | | | | | | |
| Tan δ 损耗角正切值 | 0.22 | 0.18 | 0.14 | 0.12 | 0.10 | 0.08 | | | | | | | | | | | | | | | | | |
| Temperature Stability(120Hz) 温度稳定性 | <table border="1"> <tr> <td>Rated Voltage(V) 工作电压</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td rowspan="2">Impedance Ratio 阻抗比</td> <td>Z-25°C/Z+20°C</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z-40°C/Z+20°C</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </table> | Rated Voltage(V) 工作电压 | 6.3 | 10 | 16 | 25 | 35 | 50 | Impedance Ratio 阻抗比 | Z-25°C/Z+20°C | 2 | 2 | 2 | 2 | 2 | 2 | Z-40°C/Z+20°C | 3 | 3 | 3 | 3 | 3 | 3 |
| | Rated Voltage(V) 工作电压 | 6.3 | 10 | 16 | 25 | 35 | 50 | | | | | | | | | | | | | | | | |
| Impedance Ratio 阻抗比 | Z-25°C/Z+20°C | 2 | 2 | 2 | 2 | 2 | 2 | | | | | | | | | | | | | | | | |
| | Z-40°C/Z+20°C | 3 | 3 | 3 | 3 | 3 | 3 | | | | | | | | | | | | | | | | |
| Load Life (105°C) 耐久性 | After an application of D.C.Bias voltage plus the rated ripple current for 200 hours at 105°C,the capacitors meet the characteristic requirements shown on the below table. 105°C条件下, 施加额定电压和额定纹波电流 2000 小时, 电容器符合下列特性要求 | | | | | | | | | | | | | | | | | | | | | | |
| | <table border="1"> <tr> <td>Leakage current 漏电流</td> <td>Not more than the specified value 不超过规定值</td> </tr> <tr> <td>Capacitance change 容量范围</td> <td>Within ± 20% of the initial value. 在初始值的 ± 20% 范围内</td> </tr> <tr> <td>Dissipation Factor 损耗角正切值</td> <td>Not more than 200%of the specified value 不超过规定值的 200%</td> </tr> </table> | Leakage current 漏电流 | Not more than the specified value 不超过规定值 | Capacitance change 容量范围 | Within ± 20% of the initial value. 在初始值的 ± 20% 范围内 | Dissipation Factor 损耗角正切值 | Not more than 200%of the specified value 不超过规定值的 200% | | | | | | | | | | | | | | | | |
| | Leakage current 漏电流 | Not more than the specified value 不超过规定值 | | | | | | | | | | | | | | | | | | | | | |
| Capacitance change 容量范围 | Within ± 20% of the initial value. 在初始值的 ± 20% 范围内 | | | | | | | | | | | | | | | | | | | | | | |
| Dissipation Factor 损耗角正切值 | Not more than 200%of the specified value 不超过规定值的 200% | | | | | | | | | | | | | | | | | | | | | | |
| Shelf Life (105°C) 高温贮存 | After leaving capacitors under no load at 105°C for 500 hours,capacitors shall meet the specified value for load life Characteristics listed above 电容器在 105°C 贮存 1000 小时后, 测试其性能应满足上表耐久性试验参数要求 | | | | | | | | | | | | | | | | | | | | | | |

DIMENSIONS (mm) 外形尺寸

MULTIPLIER FOR RIPPLE CURRENT 纹波电流倍乘因子





STANDARD RATINGS 额定技术参数

Size 外形尺寸: \varnothing DxL(mm)

Impedance 阻抗: (20°C/100kHz)

Ripple Current 纹波电流: (mA,105°C/100kHz)

| WV (v) | 6.3 | | | 10 | | | 16 | | |
|-----------|--------------------|--------------|---------------------|--------------------|--------------|---------------------|--------------------|--------------|---------------------|
| | Nominal Capacitors | Impedance 阻抗 | Ripple Current 纹波电流 | Nominal Capacitors | Impedance 阻抗 | Ripple Current 纹波电流 | Nominal Capacitors | Impedance 阻抗 | Ripple Current 纹波电流 |
| | μ F | Ω | mArms | μ F | Ω | mArms | μ F | Ω | mArms |
| DxL (mm) | | | | | | | | | |
| 5X11.5 | 150 | 0.3 | 250 | 100 | 0.30 | 250 | 56 | 0.30 | 250 |
| 6.3X11.5 | 330 | 0.13 | 405 | 220 | 0.13 | 405 | 120 | 0.13 | 405 |
| 8X12 | 560 | 0.072 | 760 | 170 | 0.072 | 760 | 330 | 0.072 | 760 |
| 8X16 | 820 | 0.056 | 995 | 680 | 0.056 | 995 | 470 | 0.053 | 1030 |
| 8x20 | 1200 | 0.041 | 1250 | 1000 | 0.041 | 1250 | 680 | 0.041 | 1250 |
| 10X12.5 | 1000 | 0.053 | 1030 | 680 | 0.053 | 1030 | 470 | 0.053 | 1030 |
| 10X16 | 1200 | 0.038 | 1430 | 1000 | 0.038 | 1430 | 680 | 0.038 | 1430 |
| 10X20 | 1500 | 0.023 | 1820 | 1200 | 0.023 | 1820 | 1000 | 0.023 | 1820 |
| 10X25 | 2200 | 0.022 | 2150 | 1500 | 0.022 | 2150 | 1200 | 0.022 | 2150 |
| 12.5X20 | 3300 | 0.021 | 2360 | 2200 | 0.021 | 2360 | 1500 | 0.021 | 2360 |
| 12.5X25 | 3900 | 0.018 | 2770 | 3300 | 0.018 | 2770 | 2200 | 0.018 | 2770 |
| 12.5X30 | 4700 | 0.016 | 3290 | 3900 | 0.016 | 3290 | 2700 | 0.016 | 3290 |
| 12.5X35 | 5600 | 0.015 | 3400 | 4700 | 0.015 | 3400 | 3300 | 0.015 | 3400 |
| 16X20 | 5600 | 0.018 | 3140 | 3900 | 0.018 | 3140 | 2700 | 0.018 | 3140 |
| 16X25 | 6800 | 0.016 | 3460 | 5600 | 0.016 | 3460 | 3900 | 0.016 | 3460 |

| WV (v) | 25 | | | 35 | | | 50 | | |
|-----------|--------------------|--------------|---------------------|--------------------|--------------|---------------------|--------------------|--------------|---------------------|
| | Nominal Capacitors | Impedance 阻抗 | Ripple Current 纹波电流 | Nominal Capacitors | Impedance 阻抗 | Ripple Current 纹波电流 | Nominal Capacitors | Impedance 阻抗 | Ripple Current 纹波电流 |
| | μ F | Ω | mArms | μ F | Ω | mArms | μ F | Ω | mArms |
| DxL (mm) | | | | | | | | | |
| 5X11.5 | 47 | 0.3 | 250 | 33 | 0.3 | 250 | 22 | 0.34 | 238 |
| 6.3X11.5 | 100 | 0.13 | 405 | 56 | 0.13 | 405 | 56 | 0.14 | 385 |
| 8X12 | 220 | 0.072 | 760 | 150 | 0.072 | 760 | 100 | 0.074 | 724 |
| 8X16 | 330 | 0.056 | 995 | 220 | 0.056 | 995 | 120 | 0.061 | 950 |
| 8x20 | 470 | 0.041 | 1250 | 270 | 0.041 | 1250 | 180 | 0.046 | 1190 |
| 10X12.5 | 680 | 0.053 | 1030 | 220 | 0.053 | 1030 | 150 | 0.061 | 979 |
| 10X16 | 820 | 0.038 | 1430 | 330 | 0.038 | 1430 | 220 | 0.042 | 1370 |
| 10X20 | 1000 | 0.023 | 1820 | 470 | 0.023 | 1820 | 270 | 0.030 | 1580 |
| 10X25 | 1500 | 0.022 | 2150 | 560 | 0.022 | 2150 | 330 | 0.028 | 1870 |
| 12.5X20 | 1800 | 0.021 | 2360 | 680 | 0.021 | 2360 | 470 | 0.027 | 2050 |
| 12.5X25 | 2200 | 0.018 | 2770 | 1000 | 0.018 | 2700 | 560 | 0.023 | 2410 |
| 12.5X30 | 1800 | 0.016 | 3290 | 1200 | 0.016 | 3290 | 680 | 0.021 | 2860 |
| 12.5X35 | 2200 | 0.015 | 3400 | 1500 | 0.015 | 3400 | 820 | 0.019 | 2960 |
| 16X20 | 1800 | 0.018 | 3140 | 1200 | 0.018 | 3140 | 820 | 0.023 | 2730 |
| 16X25 | 2700 | 0.016 | 3460 | 1800 | 0.016 | 3460 | 1000 | 0.021 | 3010 |



CD71 Series

Standard bi-polarized series for entertainment electronics
 无极性，用于消费类电子

SPECIFICATIONS 特性说明

| Item 项目 | Characteristics 特性 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--------------------------|---|------------------------|---|----------------------------|--|------------------------------|--|------|-----|-----|------------------------|------------------------|---------------|------|------|------|------|------|------|------|------|---|---|---------------|----|---|---|---|---|--|--|---|---|
| Operating Temperature Range(°C) 工作温度范围 | -40~+85 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Capacitance Tolerance(20°C,120Hz) 容量偏差 | ± 20% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leakage Current 漏电流 | $\leq 0.03CV+3 \mu A$ whichever is greater(at 20°C,after 2 minutes) $\leq 0.03CV+3 \mu A$ 取最大值 (2分钟,20°C) C:Nominal capacitance 标称容量 (μF), V:Rated voltage 额定电压 (V) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dissipation Factor(20°C,120Hz) 损耗角正切值 | <table border="1"> <tr> <td>Rated Voltage(V) 工作电压</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> <td>160</td> <td>250</td> </tr> <tr> <td>Tan δ 损耗角正切值</td> <td>0.24</td> <td>0.20</td> <td>0.16</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.09</td> <td>0.15</td> <td>0.15</td> </tr> </table> | Rated Voltage(V) 工作电压 | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160 | 250 | Tan δ 损耗角正切值 | 0.24 | 0.20 | 0.16 | 0.16 | 0.14 | 0.12 | 0.10 | 0.09 | 0.15 | 0.15 | | | | | | | | | | | | |
| Rated Voltage(V) 工作电压 | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160 | 250 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tan δ 损耗角正切值 | 0.24 | 0.20 | 0.16 | 0.16 | 0.14 | 0.12 | 0.10 | 0.09 | 0.15 | 0.15 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature Stability(120Hz) 温度稳定性 | <table border="1"> <tr> <td colspan="2">Rated Voltage(V) 工作电压</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> <td>160</td> <td>250</td> </tr> <tr> <td rowspan="2">Impedance ratio 阻抗比</td> <td>Z-25°C/Z+20°C</td> <td>4</td> <td>3</td> <td colspan="6">2</td> <td>4</td> <td>4</td> </tr> <tr> <td>Z-40°C/Z+20°C</td> <td>10</td> <td>8</td> <td>6</td> <td>4</td> <td colspan="3">3</td> <td>-</td> <td>-</td> </tr> </table> | Rated Voltage(V) 工作电压 | | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160 | 250 | Impedance ratio 阻抗比 | Z-25°C/Z+20°C | 4 | 3 | 2 | | | | | | 4 | 4 | Z-40°C/Z+20°C | 10 | 8 | 6 | 4 | 3 | | | - | - |
| Rated Voltage(V) 工作电压 | | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160 | 250 | | | | | | | | | | | | | | | | | | | | | | | | |
| Impedance ratio 阻抗比 | Z-25°C/Z+20°C | 4 | 3 | 2 | | | | | | 4 | 4 | | | | | | | | | | | | | | | | | | | | | | | | |
| | Z-40°C/Z+20°C | 10 | 8 | 6 | 4 | 3 | | | - | - | | | | | | | | | | | | | | | | | | | | | | | | | |
| Load Life(85°C) 耐久性 | <table border="1"> <tr> <td>Time 时间</td> <td>2000 hours.(Polarity inverts for every 250 hours) 2000 小时 (每 250 小时交换极性)</td> </tr> <tr> <td>Leakage current 漏电流</td> <td>Not more than the specified value 不超过规定值</td> </tr> <tr> <td>Capacitance change 容量变化</td> <td>Within ± 20% of the initial value. 在初始值的 ± 20% 以内</td> </tr> <tr> <td>Dissipation Factor 损耗角正切值</td> <td>Not more than 150%of the specified value 不大于规定值的 150%</td> </tr> </table> | Time 时间 | 2000 hours.(Polarity inverts for every 250 hours) 2000 小时 (每 250 小时交换极性) | Leakage current 漏电流 | Not more than the specified value 不超过规定值 | Capacitance change 容量变化 | Within ± 20% of the initial value. 在初始值的 ± 20% 以内 | Dissipation Factor 损耗角正切值 | Not more than 150%of the specified value 不大于规定值的 150% | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Time 时间 | 2000 hours.(Polarity inverts for every 250 hours) 2000 小时 (每 250 小时交换极性) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leakage current 漏电流 | Not more than the specified value 不超过规定值 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Capacitance change 容量变化 | Within ± 20% of the initial value. 在初始值的 ± 20% 以内 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dissipation Factor 损耗角正切值 | Not more than 150%of the specified value 不大于规定值的 150% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Shelf Life(85°C) 高温贮存 | 1000hours. No voltage applied.They meet the specified value for load life characteristics listed above. 电容器在 85°C条件下，贮存 1000 小时后，测试其性能应满足上表耐久性试验参数要求 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



DIMENSIONS(mm) 外形尺寸

MULTIPLIER FOR RIPPLE CURRENT 纹波电流倍乘因子

| | | | | | | |
|----------|----------------|-----|-----|-----|-----|-----|
| Ø D | 5 | 6.3 | 8 | 10 | 16 | 18 |
| P | 2.0 | 2.5 | 3.5 | 5.0 | 7.5 | 7.5 |
| Ød | 0.5 | 0.5 | 0.6 | 0.6 | 0.8 | 0.8 |
| α | (Ø D < 10) 1.0 | | | | | |
| | (Ø D ≥ 10) 1.5 | | | | | |

Frequency coefficient 频率因子

| Freq(Hz) | 50.60 | 120 | 1K | 10K | 100K |
|----------|-------|-----|-----|-----|------|
| WV | | | | | |
| 6.3~16 | 0.80 | 1 | 1.1 | 1.2 | 1.2 |
| 25~35 | 0.80 | 1 | 1.5 | 1.7 | 1.7 |
| 50~160 | 0.80 | 1 | 1.6 | 1.9 | 1.9 |

Temperature coefficient 温度因子

| | | |
|-----------------|------|-----|
| Temperature(°C) | +70 | +85 |
| Factor | 1.35 | 1.0 |

STANDARD RATINGS 额定技术参数

Size 外形尺寸: $\phi D \times L$ (mm) **Ripple Current** 纹波电流: (mA, 85°C/100/120Hz)

| WV | 6.3 | | 10 | | 16 | | 25 | | 35 | | 50 | | 63 | | 100 | | 160 | | 250 | |
|----------|------------------------|-------------|------------------------|-------------|------------------------|-------------|------------------------|-------------|------------------------|-------------|------------------------|-------------|------------------------|-------------|------------------------|-------------|------------------------|-------------|------------------------|-------------|
| | Size 尺寸 | Ripple 纹波电流 | Size 尺寸 | Ripple 纹波电流 | Size 尺寸 | Ripple 纹波电流 | Size 尺寸 | Ripple 纹波电流 | Size 尺寸 | Ripple 纹波电流 | Size 尺寸 | Ripple 纹波电流 | Size 尺寸 | Ripple 纹波电流 | Size 尺寸 | Ripple 纹波电流 | Size 尺寸 | Ripple 纹波电流 | Size 尺寸 | Ripple 纹波电流 |
| Cap (µF) | $\phi D \times L$ (mm) | mArms | $\phi D \times L$ (mm) | mArms | $\phi D \times L$ (mm) | mArms | $\phi D \times L$ (mm) | mArms | $\phi D \times L$ (mm) | mArms | $\phi D \times L$ (mm) | mArms | $\phi D \times L$ (mm) | mArms | $\phi D \times L$ (mm) | mArms | $\phi D \times L$ (mm) | mArms | $\phi D \times L$ (mm) | mArms |
| 0.1 | - | - | - | - | - | - | - | - | - | - | 5X11 | 4 | - | - | 5X11 | 5 | - | - | - | - |
| 0.22 | - | - | - | - | - | - | - | - | - | - | 5X11 | 7 | - | - | 5X11 | 8 | - | - | - | - |
| 0.33 | - | - | - | - | - | - | - | - | - | - | 5X11 | 8 | - | - | 5X11 | 9 | - | - | - | - |
| 0.47 | - | - | - | - | - | - | - | - | - | - | 5X11 | 10 | - | - | 5X11 | 11 | - | - | - | - |
| 1 | - | - | - | - | - | - | - | - | - | - | 5X11 | 14 | - | - | 5X11 | 16 | 6.3X12 | 25 | 6.3X12 | 25 |
| 2.2 | - | - | - | - | - | - | - | - | - | - | 5X11 | 21 | 5X11 | 23 | 5X11 | 24 | 8X12 | 39 | 8X12 | 40 |
| 3.3 | - | - | - | - | - | - | - | - | - | - | 5X11 | 26 | 5X11 | 28 | 6.3X11 | 34 | 10X12 | 49 | 10X12 | 52 |
| 4.7 | - | - | - | - | - | - | 5X11 | 28 | 5X11 | 28 | 5X11 | 31 | 5X11 | 34 | 6.3X11 | 41 | 10X16 | 59 | 10X16 | 64 |
| 10 | - | - | - | - | 5X11 | 39 | 5X11 | 40 | 5X11 | 42 | 6.3X11 | 45 | 6.3X11 | 57 | 8X11.5 | 70 | 10X20 | 109 | 12.5X20 | 120 |
| 22 | - | - | 5X11 | 52 | 5X11 | 58 | 5X11 | 60 | 6.3X11 | 71 | 6.3X12 | 77 | 8X11.5 | 89 | 10X16 | 136 | 12.5X20 | 177 | 12.5X25 | 190 |
| 33 | 5X11 | 58 | 5X11 | 63 | 5X11 | 71 | 6.3X11 | 84 | 6.3X11 | 87 | 8X12.5 | 111 | 10X12.5 | 144 | 10X20 | 181 | 12.5X25 | 240 | - | - |
| 47 | 5X11 | 69 | 5X11 | 5 | 6.3X11 | 97 | 6.3X11 | 100 | 8X11.5 | 122 | 10X12.5 | 157 | 10X16 | 188 | 12.5X20 | 248 | 16X25 | 329 | - | - |
| 100 | 6.3X11 | 115 | 6.3X11 | 126 | 8X11.5 | 167 | 8X12.5 | 204 | 10X12.5 | 212 | 10X20 | 273 | 12.5X20 | 343 | 16X25 | 458 | 18X35.5 | 425 | - | - |
| 220 | 8X11.5 | 202 | 8X11.5 | 221 | 10X12.5 | 294 | 10X16 | 332 | 10X20 | 375 | 12.5X20 | 506 | 16X25 | 645 | 18X35.5 | 837 | - | - | - | - |
| 330 | 8X11.5 | 247 | 10X12.5 | 322 | 10X16 | 394 | 10X20 | 444 | 12.5X20 | 526 | 12.5X25 | 620 | - | - | - | - | - | - | - | - |
| 470 | 10X12.5 | 350 | 10X16 | 420 | 10X20 | 513 | 12.5X20 | 607 | 12.5X25 | 685 | 16X25 | 861 | - | - | - | - | - | - | - | - |
| 1000 | 10X20 | 611 | 12.5X20 | 767 | 12.5X25 | 935 | 16X25 | 1120 | 16X31.5 | 1270 | - | - | - | - | - | - | - | - | - | - |
| 2200 | 12.5X25 | 1090 | 16X25 | 1380 | 16X31.5 | 1660 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3300 | 16X25 | 1490 | 16X31.5 | 1760 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 4700 | 16X31.5 | 1880 | 18X35.5 | 2280 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



CD293 series

- Load life 2000 hours at 85°C
- 负荷寿命 85°C 2000 小时
- High ripple current
- 高纹波电流
- Small size
- 小尺寸
- PCB Mounting
- 印刷电路安装

SPECIFICATIONS 特性说明

| Item 项目 | Characteristics 特性 | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--------------------------|------------|------------------------|---|----------------------------|---|------------------------------|--|---------------|-----------------|------|------|------|------|------|---------------|------|------|----|---|---|---|
| Operating Temperature Range(°C) 工作温度范围 | -40°C~+85V(450WV-25°C-85°C) | | | | | | | | | | | | | | | | | | | | | | |
| Capacitance Tolerance(20°C,120Hz) 容量偏差 | ± 20% | | | | | | | | | | | | | | | | | | | | | | |
| Leakage Current 漏电流 | 0.01CV or 1.5mA whichever is smaller.(at 20°C,5 minutes) C:Nomial Capacitance 标准容量(μF) 0.01CV 或 1.5mA 取最小值(5 分钟, 20°C) V:Rated Voltage 额定电压 (V) | | | | | | | | | | | | | | | | | | | | | | |
| Dissipation Factor(20°C,120Hz) 损耗角正切值 | <table border="1"> <tr> <td>Rated Voltage(V) 工作电压</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63-100</td> <td>160-250</td> <td>315-450</td> </tr> <tr> <td>Tan δ 损耗角正切值</td> <td>0.40</td> <td>0.40</td> <td>0.30</td> <td>0.25</td> <td>0.20</td> <td>0.20</td> <td>0.15</td> <td>0.15</td> </tr> </table> | Rated Voltage(V) 工作电压 | 10 | 16 | 25 | 35 | 50 | 63-100 | 160-250 | 315-450 | Tan δ 损耗角正切值 | 0.40 | 0.40 | 0.30 | 0.25 | 0.20 | 0.20 | 0.15 | 0.15 | | | | |
| Rated Voltage(V) 工作电压 | 10 | 16 | 25 | 35 | 50 | 63-100 | 160-250 | 315-450 | | | | | | | | | | | | | | | |
| Tan δ 损耗角正切值 | 0.40 | 0.40 | 0.30 | 0.25 | 0.20 | 0.20 | 0.15 | 0.15 | | | | | | | | | | | | | | | |
| Temperature Stability(120Hz) 温度特性 | <table border="1"> <tr> <td>Rated Voltage(V) 工作电压</td> <td>10</td> <td>15-35</td> <td>50-100</td> <td>160-200</td> <td>250-400</td> <td>450</td> </tr> <tr> <td rowspan="2">Impedance Ratio 阻抗比</td> <td>Z-25°C/Z+20°C</td> <td>5</td> <td>4</td> <td>3</td> <td>3</td> <td>4</td> <td>4</td> </tr> <tr> <td>Z-40°C/Z+20°C</td> <td>18</td> <td>15</td> <td>10</td> <td>6</td> <td>8</td> <td>-</td> </tr> </table> | Rated Voltage(V) 工作电压 | 10 | 15-35 | 50-100 | 160-200 | 250-400 | 450 | Impedance Ratio 阻抗比 | Z-25°C/Z+20°C | 5 | 4 | 3 | 3 | 4 | 4 | Z-40°C/Z+20°C | 18 | 15 | 10 | 6 | 8 | - |
| Rated Voltage(V) 工作电压 | 10 | 15-35 | 50-100 | 160-200 | 250-400 | 450 | | | | | | | | | | | | | | | | | |
| Impedance Ratio 阻抗比 | Z-25°C/Z+20°C | 5 | 4 | 3 | 3 | 4 | 4 | | | | | | | | | | | | | | | | |
| | Z-40°C/Z+20°C | 18 | 15 | 10 | 6 | 8 | - | | | | | | | | | | | | | | | | |
| Load Life (85°C) 耐久性 | <table border="1"> <tr> <td>Time 时间</td> <td>2000 hours</td> </tr> <tr> <td>Leakage current 漏电流</td> <td>Not more than the specified value 不大于规定值</td> </tr> <tr> <td>Capacitance change 容量变化</td> <td>Within ± 20% of the initial value. 在初始值的 ± 20% 范围内</td> </tr> <tr> <td>Dissipation Factor 损耗角正切值</td> <td>Not more than 200%of the specified value 不大于规定值的 200%</td> </tr> </table> | Time 时间 | 2000 hours | Leakage current 漏电流 | Not more than the specified value 不大于规定值 | Capacitance change 容量变化 | Within ± 20% of the initial value. 在初始值的 ± 20% 范围内 | Dissipation Factor 损耗角正切值 | Not more than 200%of the specified value 不大于规定值的 200% | | | | | | | | | | | | | | |
| Time 时间 | 2000 hours | | | | | | | | | | | | | | | | | | | | | | |
| Leakage current 漏电流 | Not more than the specified value 不大于规定值 | | | | | | | | | | | | | | | | | | | | | | |
| Capacitance change 容量变化 | Within ± 20% of the initial value. 在初始值的 ± 20% 范围内 | | | | | | | | | | | | | | | | | | | | | | |
| Dissipation Factor 损耗角正切值 | Not more than 200%of the specified value 不大于规定值的 200% | | | | | | | | | | | | | | | | | | | | | | |
| Shelf Life (85°C) 高温贮存 | After storage for 1000 hours at 85°C,with no voltage applied,the capacitor shall meet the specified limits for "Load Life" 电容器在 85°C 贮存 1000 小时后, 测试其性能应满足上表耐久性试验参数要求。 | | | | | | | | | | | | | | | | | | | | | | |



DIMENSIONS (mm) 外形尺寸

MULTIPLIER FOR RIPPLE CURRENT 纹波电流倍乘因子

(PC board hole dimensions) (Terminal dimensions)

Frequency coefficient 频率因子

| Freq(Hz) | 50 | 120 | 1K | 10K | 20K |
|------------------|------|-----|------|------|------|
| Rated Voltage(V) | | | | | |
| ≤ 50 | 0.95 | 1 | 1.10 | 1.15 | 1.15 |
| 63-100 | 0.95 | 1 | 1.16 | 1.30 | 1.33 |
| ≥ 160 | 0.90 | 1 | 1.20 | 1.50 | 1.55 |

Temperature coefficient 温度因子

| Temperature(°C) | +40 | +55 | +70 | +85 |
|------------------|-----|-----|-----|-----|
| Rated voltage(V) | | | | |
| <160 | 2.1 | 1.8 | 1.5 | 1.0 |
| ≥ 160 | 1.7 | 1.5 | 1.3 | 1.0 |

STANDARD RATINGS 额定技术参数

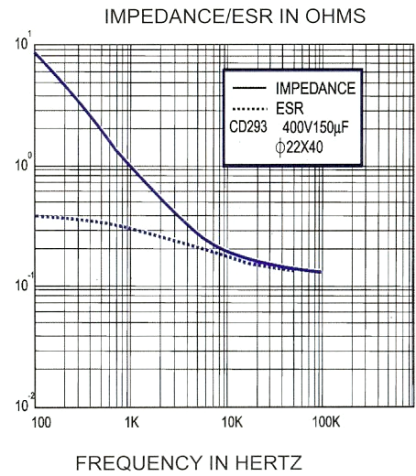
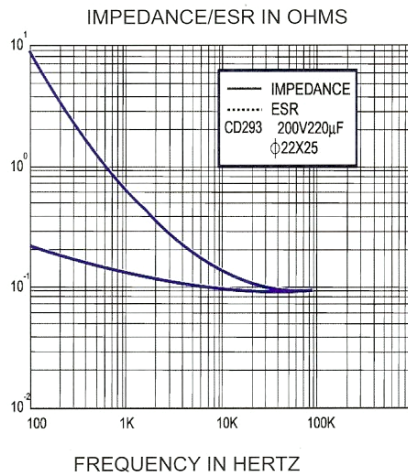
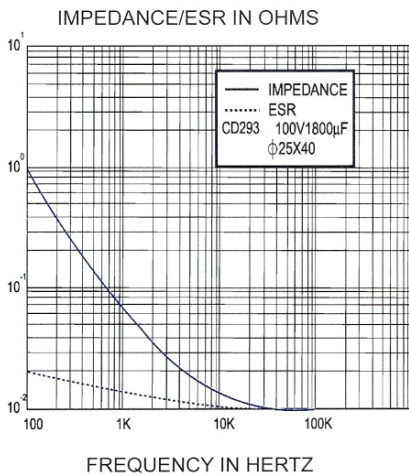
| Size øDxL (mm) | 10 | | 16 | | 25 | | 35 | | 50 | | 63 | | 80 | | 100 | |
|----------------------|-------|--------------------|-------|--------------------|-------|--------------------|-------|--------------------|-------|--------------------|-------|--------------------|------|--------------------|------|--------------------|
| | Cap | Ripple 纹波 电流 | Cap | Ripple 纹波 电流 | Cap | Ripple 纹波 电流 | Cap | Ripple 纹波 电流 | Cap | Ripple 纹波 电流 | Cap | Ripple 纹波 电流 | Cap | Ripple 纹波 电流 | Cap | Ripple 纹波 电流 |
| | μF | Arms | μF | Arms | μF | Arms | μF | Arms | μF | Arms | μF | Arms | μF | Arms | μF | Arms |
| 22x25 | 10000 | 2.5 | 8200 | 2.2 | 5600 | 2.0 | 3300 | 1.8 | 2200 | 1.7 | 1500 | 1.6 | 1000 | 1.3 | 680 | 1.1 |
| 22x30 | 15000 | 3.2 | 10000 | 2.6 | 6800 | 2.3 | 3900 | 2.1 | 2700 | 1.9 | 2200 | 2.0 | 1200 | 1.5 | 820 | 1.2 |
| 22x35 | 18000 | 3.6 | 12000 | 2.9 | 8200 | 2.6 | 5600 | 2.3 | 3900 | 2.1 | 2700 | 2.2 | 1800 | 1.9 | 1200 | 1.6 |
| 22x40 | 22000 | 4.0 | 15000 | 3.3 | 10000 | 2.9 | 6800 | 2.9 | 4700 | 2.4 | 3300 | 2.3 | 2200 | 2.1 | 1500 | 1.8 |
| 22x45 | | | 18000 | 3.8 | 12000 | 3.3 | | | | | 3900 | 2.5 | | | | |
| 22x50 | | | 22000 | 4.2 | | | 8200 | 2.8 | 5600 | 2.5 | | | 2700 | 2.5 | 1800 | 2.1 |
| 25x25 | 15000 | 3.1 | 10000 | 2.6 | 6800 | 2.3 | 4700 | 2.2 | 2700 | 1.9 | 2200 | 2.0 | 1500 | 1.7 | 1000 | 1.4 |
| 25x30 | 18000 | 3.6 | 15000 | 3.3 | 10000 | 2.8 | 5600 | 2.3 | 3900 | 2.1 | 2700 | 2.3 | 1800 | 1.9 | 1200 | 1.6 |
| 25x35 | 22000 | 4.1 | 18000 | 3.7 | 12000 | 3.2 | 6800 | 2.6 | 4700 | 2.4 | 3300 | 2.3 | 2200 | 2.2 | 1500 | 1.7 |
| 25x40 | | | 22000 | 4.2 | 15000 | 3.7 | 8200 | 2.8 | 5600 | 2.5 | 3900 | 2.6 | 2700 | 2.5 | 1800 | 2.0 |
| 25x45 | | | | | | | 1000 | 3.1 | 6800 | 2.8 | 5600 | 3.1 | 3300 | 2.8 | 2200 | 2.2 |
| 25x50 | | | | | 18000 | 4.3 | 12000 | 3.5 | 8200 | 3.2 | | | 3900 | 3.1 | 2700 | 2.6 |
| 30x25 | 22000 | 4.1 | 15000 | 3.4 | 10000 | 3.0 | 6800 | 2.7 | 3900 | 2.4 | 3300 | 2.3 | 2200 | 2.2 | 1500 | 1.8 |
| 30x30 | | | 22000 | 4.2 | 12000 | 3.4 | 8200 | 2.8 | 5600 | 2.5 | 3900 | 2.6 | 2700 | 2.5 | 1800 | 2.1 |
| 30x35 | | | | | 18000 | 1.2 | 1000 | 3.2 | 6800 | 2.8 | 5600 | 3.2 | 3300 | 2.8 | 2200 | 2.3 |
| 30x40 | | | | | 22000 | 4.8 | 1200 | 3.5 | 8200 | 3.0 | 6800 | 3.6 | 3900 | 3.2 | 2700 | 2.7 |
| 30x45 | | | | | | | 15000 | 4.1 | 10000 | 3.4 | | | 4700 | 3.6 | 3300 | 3.0 |
| 30x50 | | | | | | | 18000 | 4.6 | 12000 | 3.8 | 8200 | 3.7 | 5600 | 3.5 | 3900 | 3.4 |
| 35x25 | | | 22000 | 4.4 | 15000 | 3.9 | 8200 | 2.9 | 5600 | 2.6 | 3900 | 2.7 | 2700 | 2.5 | 1800 | 2.2 |
| 30x30 | | | | | 18000 | 4.4 | 12000 | 3.6 | 8200 | 3.0 | 5600 | 3.3 | 3900 | 3.2 | 2200 | 2.5 |
| 35x35 | | | | | 22000 | 5.0 | 15000 | 4.1 | 10000 | 3.4 | 6800 | 3.7 | 4700 | 3.6 | 3300 | 3.1 |
| 35x40 | | | | | | | 18000 | 4.7 | 12000 | 3.8 | 8200 | 3.8 | 5600 | 3.5 | 3900 | 3.4 |
| 35x45 | | | | | | | 22000 | 5.3 | | | 10000 | 4.3 | | | | |
| 35x50 | | | | | | | | | 15000 | 4.5 | 12000 | 4.8 | 6800 | 4.1 | 4700 | 4.0 |



| Size øDxL (mm) | 160 | | 180 | | 200 | | 250 | | 315 | | 350 | | 400 | | 450 | |
|----------------------|------|--------------------|------|--------------------|------|--------------------|------|--------------------|-----|--------------------|-----|--------------------|-----|--------------------|-----|--------------------|
| | Cap | Ripple 纹波 电流 | Cap | Ripple 纹波 电流 | Cap | Ripple 纹波 电流 | Cap | Ripple 纹波 电流 | Cap | Ripple 纹波 电流 | Cap | Ripple 纹波 电流 | Cap | Ripple 纹波 电流 | Cap | Ripple 纹波 电流 |
| | μF | Arms | μF | Arms | μF | Arms | μF | Arms | μF | Arms | μF | Arms | μF | Arms | μF | Arms |
| 22x25 | 330 | 3.1 | 270 | 1.2 | 220 | 1.1 | 180 | 0.94 | 100 | 0.67 | 82 | 0.64 | 68 | 0.56 | | |
| 22x30 | 390 | 1.5 | 330 | 1.4 | 330 | 1.4 | 220 | 1.1 | 150 | 0.85 | 120 | 0.82 | 100 | 0.70 | 66 | 0.57 |
| 22x35 | 560 | 1.9 | 470 | 1.7 | 390 | 1.6 | 270 | 1.2 | 180 | 0.96 | 150 | 0.94 | 120 | 0.79 | 100 | 0.72 |
| 22x40 | 680 | 2.1 | 560 | 1.9 | 470 | 1.8 | 330 | 1.4 | 220 | 1.1 | 180 | 1.1 | 150 | 0.90 | 120 | 0.80 |
| 22x45 | | | | | 560 | 2.0 | 390 | 1.6 | 270 | 1.2 | 220 | 1.2 | 180 | 1.0 | | |
| 22x50 | 820 | 2.5 | 680 | 2.3 | | | 470 | 1.8 | | | | | 220 | 1.1 | 150 | 0.95 |
| 25x25 | 390 | 1.5 | 390 | 1.5 | 330 | 1.4 | 220 | 1.1 | 150 | 0.85 | 120 | 0.81 | 100 | 0.70 | | |
| 25x30 | 560 | 1.9 | 470 | 1.7 | 390 | 1.6 | 330 | 1.4 | 180 | 0.96 | 150 | 0.94 | 150 | 0.89 | 100 | 0.73 |
| 25x35 | 680 | 2.2 | 560 | 2.0 | 560 | 2.0 | 390 | 1.6 | 220 | 1.1 | 220 | 1.2 | 180 | 1.0 | 120 | 0.83 |
| 25x40 | 820 | 2.4 | 680 | 2.2 | 680 | 2.3 | 470 | 1.8 | 270 | 1.3 | | | 220 | 1.2 | 150 | 0.95 |
| 25x45 | 1000 | 2.7 | 820 | 2.5 | | | 560 | 2.0 | 330 | 1.4 | 270 | 1.4 | 270 | 1.3 | 180 | 1.1 |
| 25x50 | 1200 | 3.1 | 1000 | 2.9 | 820 | 2.6 | | | 390 | 1.6 | 330 | 1.6 | | | 220 | 1.2 |
| 30x25 | 560 | 2.0 | 470 | 1.8 | 470 | 1.9 | 330 | 1.5 | 220 | 1.1 | 180 | 1.1 | 150 | 0.95 | | |
| 30x30 | 680 | 2.5 | 680 | 2.3 | 560 | 2.1 | 470 | 1.8 | 270 | 1.6 | 220 | 1.2 | 180 | 1.1 | 150 | 0.98 |
| 30x35 | 1000 | 2.8 | 820 | 2.6 | 680 | 2.4 | 560 | 2.0 | 330 | 1.4 | 270 | 1.4 | 220 | 1.2 | 180 | 1.1 |
| 30x40 | 1200 | 3.2 | 1000 | 2.9 | 820 | 2.7 | 680 | 2.3 | 390 | 1.6 | 390 | 1.7 | 270 | 1.4 | 220 | 1.3 |
| 30x45 | 1500 | 3.7 | 1200 | 3.3 | 1000 | 3.1 | 820 | 2.6 | 170 | 1.8 | 470 | 2.0 | 330 | 1.6 | 270 | 1.4 |
| 30x50 | | | | | 1200 | 3.4 | | | 560 | 2.0 | | | 390 | 1.8 | | |
| 35x25 | 820 | 2.4 | 680 | 2.2 | 560 | 2.0 | 470 | 1.9 | 270 | 1.3 | 220 | 1.3 | 180 | 1.2 | 180 | 1.2 |
| 35x30 | 1000 | 2.7 | 820 | 2.5 | 820 | 2.5 | 680 | 2.4 | 390 | 1.6 | 330 | 1.6 | 270 | 1.6 | 220 | 1.3 |
| 35x35 | 1200 | 3.0 | 1200 | 3.1 | 1000 | 2.8 | 820 | 2.6 | 470 | 1.8 | 390 | 1.8 | 330 | 1.7 | 270 | 1.5 |
| 35x40 | 1500 | 3.5 | | | 1200 | 3.2 | 1000 | 3.0 | 560 | 2.0 | 470 | 2.0 | 390 | 1.8 | | |
| 35x45 | 1800 | 3.9 | 1500 | 3.6 | | | 1200 | 3.4 | 680 | 2.3 | 560 | 2.3 | 470 | 2.1 | 390 | 1.9 |
| 35x50 | 2200 | 4.5 | 1800 | 4.1 | 1500 | 3.8 | | | | | 680 | 2.6 | 560 | 2.3 | 470 | 2.2 |

Ripple Current 纹波电流: (mA,85°C/120Hz)

TYPICAL CURVES 典型曲线





CD293H series

Load life of 2000 hours at 105°C

105°C 2000 小时负荷寿命

High ripple current

高纹波电流

Small size

小尺寸

PCB Mounting

印刷电路安装

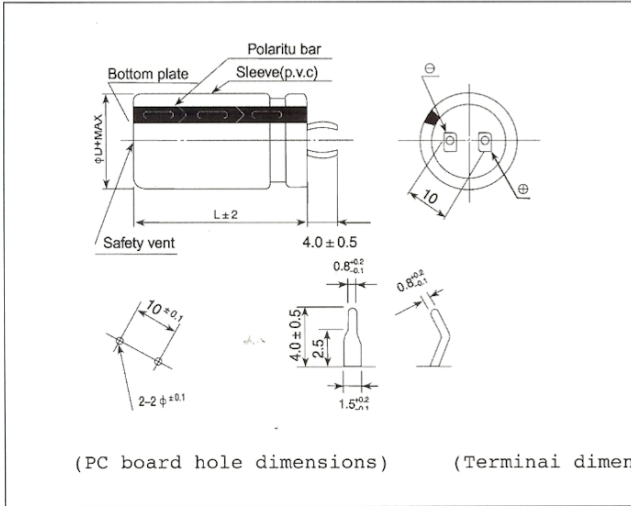
SPECIFICATIONS 特性说明

| Item 项目 | Characteristics 特性 | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--------------------------|------------|------------------------|---|----------------------------|---|------------------------------|--|---------|------------------------|---------------|------|------|------|------|------|------|------|---------------|----|----|---|---|---|---|---|
| Operating Temperature Range(°C) 工作温度范围 | -40~+105°C(250~400WV;-25°C~105°C) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Capacitance Tolerance(20°C,120Hz) 容量偏差 | ± 20% | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leakage Current 漏电流 | 0.01CV or 1.5mA whichever is smaller.(at 20°C,5 minutes) C:Nomial Capacitance 标准容量(μF) 0.01CV 或 1.5mA 取最小值(5分钟, 20°C) V:Rated Voltage 额定电压 (V) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dissipation Factor(20°C,120Hz) 损耗角正切值 | <table border="1"> <thead> <tr> <th>Rated Voltage(V) 工作电压</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63-100</th> <th>160-200</th> <th>250-400</th> </tr> </thead> <tbody> <tr> <td>Tan δ 损耗角正切值</td> <td>0.45</td> <td>0.35</td> <td>0.30</td> <td>0.25</td> <td>0.20</td> <td>0.15</td> <td>0.12</td> <td>0.15</td> </tr> </tbody> </table> | Rated Voltage(V) 工作电压 | 10 | 16 | 25 | 35 | 50 | 63-100 | 160-200 | 250-400 | Tan δ 损耗角正切值 | 0.45 | 0.35 | 0.30 | 0.25 | 0.20 | 0.15 | 0.12 | 0.15 | | | | | | | | |
| Rated Voltage(V) 工作电压 | 10 | 16 | 25 | 35 | 50 | 63-100 | 160-200 | 250-400 | | | | | | | | | | | | | | | | | | | |
| Tan δ 损耗角正切值 | 0.45 | 0.35 | 0.30 | 0.25 | 0.20 | 0.15 | 0.12 | 0.15 | | | | | | | | | | | | | | | | | | | |
| Temperature Stability(120Hz) 温度特性 | <table border="1"> <thead> <tr> <th colspan="2">Rated Voltage(V) 工作电压</th> <th>10.16</th> <th>25</th> <th>35</th> <th>50.63</th> <th>80.100</th> <th>160-200</th> <th>250-400</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Impedance Ratio 阻抗比</td> <td>Z-25°C/Z+20°C</td> <td>4</td> <td>3</td> <td>3</td> <td>2</td> <td>2</td> <td>3</td> <td>4</td> </tr> <tr> <td>Z-40°C/Z+20°C</td> <td>15</td> <td>10</td> <td>8</td> <td>6</td> <td>5</td> <td>6</td> <td>-</td> </tr> </tbody> </table> | Rated Voltage(V) 工作电压 | | 10.16 | 25 | 35 | 50.63 | 80.100 | 160-200 | 250-400 | Impedance Ratio 阻抗比 | Z-25°C/Z+20°C | 4 | 3 | 3 | 2 | 2 | 3 | 4 | Z-40°C/Z+20°C | 15 | 10 | 8 | 6 | 5 | 6 | - |
| Rated Voltage(V) 工作电压 | | 10.16 | 25 | 35 | 50.63 | 80.100 | 160-200 | 250-400 | | | | | | | | | | | | | | | | | | | |
| Impedance Ratio 阻抗比 | Z-25°C/Z+20°C | 4 | 3 | 3 | 2 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | |
| | Z-40°C/Z+20°C | 15 | 10 | 8 | 6 | 5 | 6 | - | | | | | | | | | | | | | | | | | | | |
| Load Life (105°C) 耐久性 | <table border="1"> <thead> <tr> <th>Time 时间</th> <th>2000 hours</th> </tr> </thead> <tbody> <tr> <td>Leakage current 漏电流</td> <td>Not more than the specified value 不大于规定值</td> </tr> <tr> <td>Capacitance change 容量变化</td> <td>Within ± 20% of the initial value. 在初始值的 ± 20% 范围内</td> </tr> <tr> <td>Dissipation Factor 损耗角正切值</td> <td>Not more than 200%of the specified value 不大于规定值的 200%</td> </tr> </tbody> </table> | Time 时间 | 2000 hours | Leakage current 漏电流 | Not more than the specified value 不大于规定值 | Capacitance change 容量变化 | Within ± 20% of the initial value. 在初始值的 ± 20% 范围内 | Dissipation Factor 损耗角正切值 | Not more than 200%of the specified value 不大于规定值的 200% | | | | | | | | | | | | | | | | | | |
| Time 时间 | 2000 hours | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leakage current 漏电流 | Not more than the specified value 不大于规定值 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Capacitance change 容量变化 | Within ± 20% of the initial value. 在初始值的 ± 20% 范围内 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dissipation Factor 损耗角正切值 | Not more than 200%of the specified value 不大于规定值的 200% | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Shelf Life (105°C) 高温贮存 | After storage for 1000 hours at 105°C,with no voltage applied,the capacitor shall meet the specified limits for "Load Life" 电容器在 105°C 贮存 1000 小时后, 测试其性能应满足上表耐久性试验参数要求。 | | | | | | | | | | | | | | | | | | | | | | | | | | |



DIMENSIONS (mm) 外形尺寸

MULTIPLIER FOR RIPPLE CURRENT 纹波电流倍乘因子



Frequency coefficient 频率因子

| | | | | | |
|------------------|------|-----|------|------|------|
| Freq(Hz) | 50 | 120 | 1K | 10K | 20K |
| Rated Voltage(V) | 50 | 120 | 1K | 10K | 20K |
| ≤ 50 | 0.95 | 1 | 1.10 | 1.15 | 1.15 |
| 63-100 | 0.95 | 1 | 1.16 | 1.30 | 1.33 |
| ≥ 160 | 0.90 | 1 | 0.20 | 1.50 | 1.55 |

Temperature coefficient 温度因子

| | | | | | |
|-----------------|-----|-----|-----|-----|------|
| Temperature(°C) | +40 | +55 | +70 | +85 | +105 |
| Factor | 2.7 | 2.5 | 2.1 | 1.7 | 1.0 |

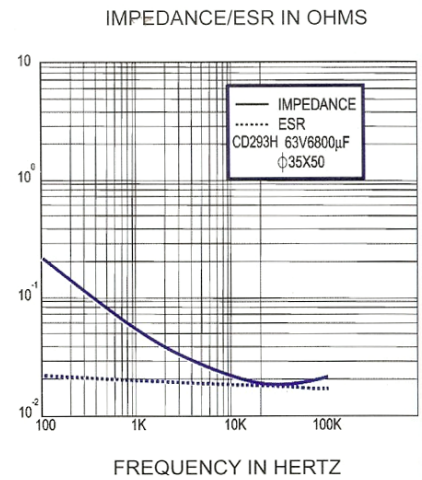
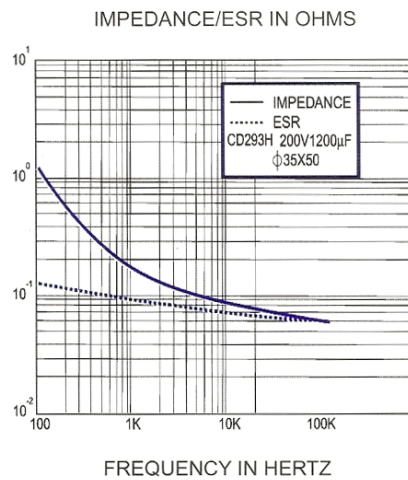
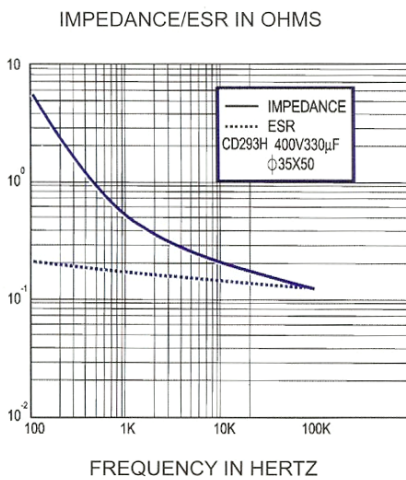
STANDARD RATINGS 额定技术参数

| WV(V) | 10 | | 16 | | 25 | | 35 | | 50 | | 63 | | 80 | | 100 | |
|-------|-------|-------------|-------|-------------|-------|-------------|-------|-------------|-------|-------------|------|-------------|------|-------------|------|-------------|
| | Cap | Ripple 纹波电流 | Cap | Ripple 纹波电流 | Cap | Ripple 纹波电流 | Cap | Ripple 纹波电流 | Cap | Ripple 纹波电流 | Cap | Ripple 纹波电流 | Cap | Ripple 纹波电流 | Cap | Ripple 纹波电流 |
| | μF | Arms | μF | Arms | μF | Arms | μF | Arms | μF | Arms | μF | Arms | μF | Arms | μF | Arms |
| 22X25 | 6800 | 1.5 | 4700 | 1.4 | 3300 | 1.3 | 2200 | 1.1 | 1200 | 0.96 | 820 | 0.92 | 560 | 0.76 | 390 | 0.64 |
| 22X30 | 10000 | 1.9 | 6800 | 1.8 | 4700 | 1.6 | 2700 | 1.3 | 1800 | 1.2 | 1200 | 1.2 | 820 | 0.96 | 560 | 0.80 |
| 22X35 | 12000 | 2.1 | 8200 | 2.0 | 5600 | 1.8 | 3900 | 1.6 | 2200 | 1.4 | 1500 | 1.3 | 1000 | 1.1 | 680 | 0.92 |
| 22X40 | 15000 | 2.5 | 10000 | 2.3 | 6800 | 2.0 | 4700 | 1.9 | 2700 | 1.6 | 1800 | 1.5 | 1200 | 1.2 | 820 | 1.0 |
| 22X50 | 18000 | 2.8 | 15000 | 2.9 | 10000 | 2.6 | 6800 | 2.4 | | | 2200 | 1.7 | 1800 | 1.6 | 1200 | 1.3 |
| 25X25 | 8200 | 1.7 | 6800 | 1.8 | 4700 | 1.6 | 3300 | 1.3 | 1800 | 1.2 | 1200 | 1.1 | 820 | 0.96 | 560 | 0.80 |
| 25X30 | 12000 | 2.1 | 10000 | 2.2 | 5600 | 1.8 | 3900 | 1.6 | 2700 | 1.5 | 1500 | 1.3 | 1000 | 1.1 | 680 | 0.92 |
| 25X35 | 15000 | 2.5 | 12000 | 2.5 | 8200 | 2.2 | 5600 | 2.0 | 3300 | 1.8 | 1800 | 1.5 | 1500 | 1.4 | 1000 | 1.1 |
| 25X40 | 18000 | 2.8 | 15000 | 2.9 | 10000 | 2.6 | 6800 | 2.3 | | | | | 1800 | 1.6 | | |
| 25X50 | | | 18000 | 3.3 | 12000 | 2.9 | 8200 | 2.7 | 5600 | 2.5 | 3300 | 2.2 | 2200 | 1.8 | 1500 | 1.5 |
| 30X25 | 12000 | 2.2 | 10000 | 2.3 | 6800 | 2.0 | 4700 | 1.9 | 2700 | 1.6 | 1500 | 1.4 | 1200 | 1.3 | 820 | 1.0 |
| 30X30 | 18000 | 2.8 | 12000 | 2.6 | 8200 | 2.3 | 5600 | 2.1 | 3300 | 1.8 | 2200 | 1.7 | 1500 | 1.5 | 1000 | 1.2 |
| 30X35 | 22000 | 3.2 | 18000 | 3.3 | 12000 | 2.9 | 8200 | 2.9 | 4700 | 2.3 | 2700 | 2.0 | 1800 | 1.6 | 1200 | 1.4 |
| 30X40 | | | 22000 | 3.7 | 15000 | 3.3 | 10000 | 3.0 | 5600 | 2.5 | 3300 | 2.3 | 2200 | 1.9 | 1500 | 1.6 |
| 30X50 | | | | | 18000 | 3.8 | 12000 | 3.4 | 6800 | 2.9 | 4700 | 2.8 | 3300 | 2.3 | 2200 | 2.0 |
| 35X25 | 15000 | 2.6 | 12000 | 2.7 | 8200 | 2.4 | 5600 | 2.2 | 3300 | 1.8 | 2200 | 1.8 | 1500 | 1.5 | 1000 | 1.3 |
| 35X30 | 22000 | 3.3 | 18000 | 3.4 | 12000 | 3.0 | 8200 | 2.8 | 4700 | 2.4 | 2700 | 2.1 | 2200 | 1.9 | 1200 | 1.4 |
| 35X35 | | | 22000 | 3.9 | 15000 | 3.5 | 10000 | 3.1 | 5600 | 2.7 | | | 2700 | 2.2 | 1800 | 1.8 |
| 35X40 | | | | | 18000 | 3.9 | 12000 | 3.5 | 6800 | 3.0 | 4700 | 2.9 | 3300 | 2.4 | 2200 | 2.0 |
| 35X50 | | | | | | | 18000 | 4.5 | 10000 | 3.8 | 6800 | 3.6 | 4700 | 3.2 | 2700 | 2.3 |



| WV(V) Size øDxL (mm) | 160 | | 180 | | 200 | | 250 | | 315 | | 350 | | 400 | |
|-------------------------------|------|--------------------|------|--------------------|------|--------------------|-----|--------------------|-----|--------------------|-----|--------------------|-----|--------------------|
| | Cap | Ripple 纹波 电流 | Cap | Ripple 纹波 电流 | Cap | Ripple 纹波 电流 | Cap | Ripple 纹波 电流 | Cap | Ripple 纹波 电流 | Cap | Ripple 纹波 电流 | Cap | Ripple 纹波 电流 |
| | μF | Arms | μF | Arms | μF | Arms | μF | Arms | μF | Arms | μF | Arms | μF | Arms |
| 22X25 | 180 | 0.65 | 180 | 0.65 | 150 | 0.60 | 100 | 0.45 | 56 | 0.34 | 56 | 0.37 | 39 | 0.32 |
| 22X30 | 270 | 0.83 | 220 | 0.75 | 220 | 0.76 | 150 | 0.58 | 82 | 0.43 | 82 | 0.47 | 56 | 0.39 |
| 22X35 | 330 | 0.94 | 270 | 0.66 | 270 | 0.87 | 180 | 0.65 | 120 | 0.53 | 100 | 0.53 | 68 | 0.45 |
| 22X40 | 390 | 1.1 | 390 | 1.1 | 330 | 0.99 | 220 | 0.75 | 150 | 0.61 | 120 | 0.60 | 82 | 0.51 |
| 22X50 | 560 | 1.3 | 470 | 1.2 | 470 | 1.2 | 330 | 0.96 | 180 | 0.71 | 180 | 0.78 | 150 | 0.64 |
| 25X25 | 270 | 0.82 | 220 | 0.75 | 220 | 0.76 | 150 | 0.58 | 82 | 0.42 | 68 | 0.43 | 56 | 0.40 |
| 25X30 | 390 | 1.0 | 330 | 0.96 | 270 | 0.87 | 220 | 0.73 | 120 | 0.53 | 100 | 0.54 | 68 | 0.46 |
| 25X35 | 470 | 1.2 | 390 | 1.1 | 390 | 1.1 | 270 | 0.83 | 150 | 0.62 | 120 | 0.61 | 100 | 0.57 |
| 25X40 | 560 | 1.3 | 470 | 1.2 | 470 | 1.3 | 330 | 0.95 | - | - | 180 | 0.77 | 120 | 0.63 |
| 25X50 | 820 | 1.7 | 680 | 1.5 | 560 | 1.4 | 470 | 1.2 | 270 | 0.89 | 220 | 0.89 | 150 | 0.75 |
| 30X25 | 390 | 1.1 | 330 | 1.0 | 270 | 0.92 | 220 | 0.77 | 120 | 0.56 | 100 | 0.57 | 82 | 0.53 |
| 30X30 | 560 | 1.3 | 470 | 1.2 | 390 | 1.1 | 270 | 0.88 | 180 | 0.71 | 150 | 0.72 | 100 | 0.61 |
| 30X35 | 680 | 1.5 | 560 | 1.4 | 560 | 1.4 | 390 | 1.1 | 220 | 0.80 | 180 | 0.82 | 150 | 0.77 |
| 30X40 | 820 | 1.7 | 680 | 1.6 | 680 | 1.6 | 470 | 1.2 | 270 | 0.92 | 220 | 0.93 | 180 | 0.87 |
| 30X50 | 1000 | 2.0 | 1000 | 2.0 | 820 | 1.8 | 560 | 1.4 | 390 | 1.20 | 330 | 1.2 | 220 | 1.0 |
| 35X25 | 470 | 1.3 | 390 | 1.2 | 390 | 1.2 | 270 | 0.93 | 180 | 0.74 | 150 | 0.77 | 100 | 0.65 |
| 35X30 | 680 | 1.6 | 560 | 1.5 | 560 | 1.5 | 390 | 1.2 | 220 | 0.84 | 220 | 0.97 | 150 | 0.83 |
| 35X35 | 820 | 1.8 | 820 | 1.8 | 680 | 1.7 | 470 | 1.3 | 330 | 1.1 | 270 | 1.1 | 180 | 0.93 |
| 30X40 | 1000 | 2.0 | 1000 | 2.1 | 820 | 1.9 | 560 | 1.5 | 390 | 1.2 | 330 | 1.3 | 220 | 1.1 |
| 35X50 | 1500 | 2.6 | 1200 | 2.4 | 1200 | 2.4 | 820 | 1.9 | 470 | 1.4 | 470 | 1.6 | 330 | 1.3 |

TYPICAL CURVES 典型曲线





CD135 series

Load life 2000 hours at 85°C

负荷寿命 85°C 2000 小时

High ripple current

高纹波电流

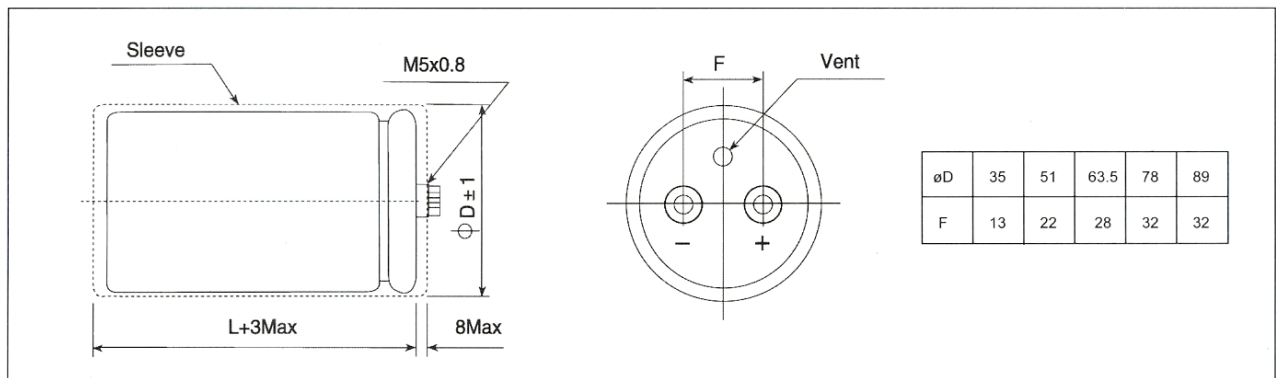
Used for computers, communication powers and Inverters

用于计算机、通讯电源和变频器

SPECIFICATIONS 特性说明

| Item 项目 | Characteristics 特性 | |
|--|---|---|
| Operating Temperature Range(°C) 工作温度范围 | -40~+85°C(315WV~450WV, -25°C~85°C) | |
| Capacitance Tolerance(20°C, 120Hz) 容量偏差 | ± 20% | |
| Leakage Current 漏电流 | 0.02CV or 5mA whichever is smaller. (at 20°C, 5 minutes) C:Nominal Capacitance 标准容量(μF) 0.02CV 或 5mA 取最小值(5 分钟, 20°C) V:Rated Voltage 额定电压 (V) | |
| Dissipation Factor(20°C, 120Hz) 损耗角正切值 | See Standard Ratings Table 见额定技术参数表 | |
| Load Life (85°C) 耐久性 | Time 时间 | 2000 hours |
| | Leakage current 漏电流 | Not more than the specified value 不大于规定值 |
| | Capacitance change 容量变化 | Within ± 20% of the initial value. 在初始值的 ± 20% 以内 |
| | Dissipation Factor 损耗角正切值 | Not more than 200% of the specified value 不大于规定值的 200% |
| Shelf Life (85°C) 高温贮存 | Time 时间 | 1000 hours |
| | Leakage current 漏电流 | Not more than the specified value 不大于规定值 |
| | Capacitance change 容量变化 | Within ± 20% of the initial value. 在初始值的 ± 20% 以内 |
| | Dissipation Factor 损耗角正切值 | Not more than 200% of the specified value 不大于规定值的 200% |

DIMENSIONS (mm) 外形尺寸





CASE CODE_(mm) 尺寸代码

| ∅D \ L | 58 | 63 | 72 | 80 | 90 | 100 | 115 | 120 | 130 | 140 | 160 |
|--------|----|----|----|----|----|-----|-----|-----|-----|-----|-----|
| 35 | A5 | A6 | A7 | A8 | A9 | A10 | A11 | A12 | - | - | - |
| 51 | - | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | - | - |
| 63.5 | - | - | D7 | D8 | D9 | D10 | D11 | D12 | D13 | D14 | - |
| 76 | - | - | - | E8 | E9 | E10 | E11 | E12 | E13 | E14 | E16 |
| 89 | - | - | - | F8 | F9 | F10 | F11 | F12 | F13 | F14 | F16 |

MULTIPLIER FOR RIPPLE CURRENT 纹波电流倍乘因子

Frequency coefficient 频率因子

| Freq(Hz) | 50 | 120 | 300 | 1K | 3K | 5K | 10K | 20K |
|------------------|------|-----|------|------|------|------|------|-------|
| Rated Voltage(V) | 50 | 120 | 300 | 1K | 3K | 5K | 10K | 20K |
| 10-50 | 0.95 | 1 | 1.04 | 1.10 | 1.12 | 1.13 | 1.15 | 1.15 |
| 63-100 | 0.95 | 1 | 1.06 | 1.06 | 1.20 | 1.25 | 1.30 | 1.363 |
| 160-200 | 0.90 | 1 | 1.10 | 1.20 | 1.35 | 1.40 | 1.50 | 1.55 |
| 250-450 | 0.80 | 1 | 1.10 | 1.20 | 1.35 | 1.40 | 1.50 | 1.55 |

Temperature coefficient 温度因子

| Rated voltage(V) | Temperature(°C) | | | |
|------------------|-----------------|-----|-----|-----|
| | +40 | +55 | +70 | +85 |
| 10-100 | 2.1 | 1.8 | 1.5 | 1 |
| 160-450 | 2.6 | 2.2 | 1.7 | 1 |

STANDARD RATINGS 额定技术参数

| Cap(μF) | 10 | | | | | | | | | | | | 16 | | | | | | | | | | | | 25 | | | | | | | | | | | |
|---------|-----|------|------|-----|------|------|----|------|------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---|---|---|--|--|
| | 10 | | | | | | | | | | | | 16 | | | | | | | | | | | | 25 | | | | | | | | | | | |
| 15000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A5 | 0.50 | 3.7 | - | - | - | - | - | - | - | - | - | | |
| 18000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A5 | 0.50 | 4.1 | - | - | - | - | - | - | - | - | - | | |
| 22000 | - | - | - | - | - | - | - | - | - | - | - | A5 | 0.60 | 4.1 | - | - | - | - | - | - | - | - | A5 | 0.50 | 4.5 | - | - | - | - | - | - | - | - | - | | |
| 27000 | - | - | - | - | - | - | - | - | - | - | - | A5 | 0.60 | 4.5 | - | - | - | - | - | - | - | - | A5 | 0.50 | 5.0 | - | - | - | - | - | - | - | - | - | | |
| 33000 | A5 | 0.80 | 4.3 | - | - | - | - | - | - | - | - | A5 | 0.60 | 5.0 | - | - | - | - | - | - | - | - | A6 | 0.50 | 5.9 | - | - | - | - | - | - | - | - | - | | |
| 39000 | A5 | 0.80 | 4.7 | - | - | - | - | - | - | - | - | A6 | 0.60 | 5.9 | - | - | - | - | - | - | - | - | A7 | 0.50 | 6.7 | C6 | 0.80 | 6.0 | - | - | - | - | - | - | | |
| 47000 | A5 | 0.80 | 5.2 | - | - | - | - | - | - | - | - | A6 | 0.60 | 6.4 | - | - | - | - | - | - | - | - | A8 | 0.50 | 7.7 | C6 | 0.80 | 6.6 | - | - | - | - | - | - | | |
| 56000 | A6 | 0.80 | 6.1 | - | - | - | - | - | - | - | - | A7 | 0.60 | 7.3 | - | - | - | - | - | - | - | - | A9 | 0.60 | 7.9 | C6 | 0.80 | 7.2 | - | - | - | - | - | - | | |
| 68000 | A6 | 0.80 | 6.7 | - | - | - | - | - | - | - | - | A8 | 0.60 | 8.4 | - | - | - | - | - | - | - | - | A10 | 0.60 | 9.1 | C6 | 0.80 | 7.9 | - | - | - | - | - | - | | |
| 82000 | A7 | 0.80 | 7.7 | - | - | - | - | - | - | - | - | A9 | 0.80 | 8.3 | - | - | - | - | - | - | - | - | A11 | 0.60 | 10.3 | C7 | 0.80 | 9.0 | - | - | - | - | - | - | | |
| 100000 | A8 | 0.80 | 8.8 | C6 | 1.50 | 7.0 | - | - | - | - | - | A10 | 0.80 | 9.5 | C6 | 1.00 | 8.6 | - | - | - | - | - | C8 | 0.80 | 10.4 | D7 | 1.0 | 9.9 | - | - | - | - | - | - | | |
| 120000 | A9 | 0.80 | 10.0 | C6 | 1.50 | 7.7 | - | - | - | - | - | A11 | 0.80 | 10.9 | C6 | 1.00 | 9.4 | - | - | - | - | - | C9 | 0.80 | 11.7 | D7 | 1.0 | 10.8 | - | - | - | - | - | - | | |
| 150000 | A11 | 1.00 | 10.8 | C6 | 1.50 | 8.6 | - | - | - | - | - | C8 | 1.0 | 11.3 | D7 | 1.50 | 9.9 | - | - | - | - | - | C11 | 0.80 | 14.1 | D8 | 1.0 | 12.5 | - | - | - | - | - | - | | |
| 180000 | A12 | 1.00 | 12.0 | C7 | 1.50 | 9.8 | - | - | - | - | - | C9 | 1.0 | 12.8 | D7 | 1.50 | 10.8 | - | - | - | - | - | C12 | 0.80 | 15.7 | D9 | 1.0 | 14.2 | E8 | 1.20 | 13.5 | - | - | - | | |
| 220000 | C8 | 1.50 | 12.0 | D7 | 2.00 | 10.4 | - | - | - | - | - | C11 | 1.0 | 15.3 | D8 | 1.50 | 12.3 | - | - | - | - | - | D10 | 1.00 | 16.1 | E8 | 1.20 | 14.9 | - | - | - | - | - | - | | |
| 270000 | C9 | 1.50 | 12.8 | D7 | 2.00 | 11.5 | - | - | - | - | - | C13 | 1.0 | 16.8 | D9 | 1.50 | 14.2 | E8 | 1.50 | 14.8 | D11 | 1.00 | 18.6 | E9 | 1.20 | 17.1 | F8 | 1.20 | 17.5 | | | | | | | |
| 330000 | C11 | 1.50 | 15.3 | D8 | 2.00 | 13.1 | - | - | - | - | - | D11 | 1.5 | 17.6 | E8 | 1.50 | 16.3 | - | - | - | - | - | D14 | 1.00 | 21.9 | E11 | 1.20 | 20.3 | F8 | 1.20 | 19.4 | - | - | - | | |
| 390000 | C13 | 1.50 | 17.3 | D9 | 2.00 | 14.7 | E8 | 2.00 | 15.4 | D11 | 1.5 | 18.3 | E9 | 1.50 | 18.4 | F8 | 2.00 | 16.3 | E11 | 1.20 | 22.0 | F9 | 1.20 | 21.8 | - | - | - | | | | | | | | | |
| 470000 | D10 | 2.00 | 16.7 | E8 | 2.00 | 16.9 | - | - | - | D14 | 1.5 | 21.3 | E11 | 1.50 | 21.6 | D8 | 2.00 | 17.9 | E14 | 1.20 | 25.6 | F10 | 1.20 | 24.6 | - | - | - | | | | | | | | | |
| 560000 | D11 | 2.00 | 19.0 | E9 | 2.00 | 19.1 | F8 | 2.50 | 17.5 | E11 | 1.5 | 23.6 | F9 | 2.00 | 20.2 | - | - | - | F11 | 1.20 | 27.9 | - | - | - | - | - | - | | | | | | | | | |
| 680000 | D13 | 2.00 | 21.7 | E10 | 2.00 | 21.6 | F8 | 2.50 | 19.3 | E14 | 1.5 | 27.1 | F11 | 2.00 | 23.8 | - | - | - | F14 | 1.20 | 32.5 | - | - | - | - | - | - | | | | | | | | | |
| 820000 | E11 | 2.00 | 24.7 | F9 | 2.00 | 21.9 | - | - | - | F13 | 2.00 | 27.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | | | | | | |



| WV(V) Cap(μF) | 35 | | | | | | | | | | 50 | | | | | | | | | | 63 | | | | | | | | | |
|------------------|-----|------|------|-----|------|------|----|------|------|-----|------|------|-----|------|------|----|------|------|-----|------|------|------|------|------|------|------|------|------|------|--|
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3900 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A5 | 0.25 | 2.7 | - | - | - | - | - | - | | |
| 4700 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A5 | 0.25 | 3.0 | - | - | - | - | - | - | |
| 5600 | - | - | - | - | - | - | - | - | - | A5 | 0.30 | 3.0 | - | - | - | - | - | - | - | - | A5 | 0.25 | 3.3 | - | - | - | - | - | - | |
| 6800 | - | - | - | - | - | - | - | - | - | A5 | 0.30 | 3.3 | - | - | - | - | - | - | - | - | A5 | 0.25 | 3.6 | - | - | - | - | - | - | |
| 8200 | - | - | - | - | - | - | - | - | - | A5 | 0.30 | 3.6 | - | - | - | - | - | - | - | - | A6 | 0.25 | 4.3 | - | - | - | - | - | - | |
| 10000 | A5 | 0.40 | 3.4 | - | - | - | - | - | - | A5 | 0.30 | 4.0 | - | - | - | - | - | - | - | - | A7 | 0.25 | 4.9 | - | - | - | - | - | - | |
| 12000 | A5 | 0.40 | 3.7 | - | - | - | - | - | - | A6 | 0.30 | 4.7 | - | - | - | - | - | - | - | - | A8 | 0.25 | 5.6 | C6 | 0.40 | 4.7 | - | - | - | |
| 15000 | A5 | 0.40 | 4.2 | - | - | - | - | - | - | A7 | 0.30 | 5.5 | C6 | 0.50 | 4.7 | - | - | - | - | - | A9 | 0.30 | 5.9 | C6 | 0.40 | 5.3 | - | - | - | |
| 18000 | A6 | 0.40 | 4.9 | - | - | - | - | - | - | A8 | 0.30 | 6.2 | C6 | 0.50 | 5.2 | - | - | - | - | - | A10 | 0.30 | 6.7 | C6 | 0.40 | 5.8 | - | - | - | |
| 22000 | A7 | 0.40 | 5.7 | - | - | - | - | - | - | A9 | 0.40 | 6.2 | C6 | 0.50 | 6.3 | - | - | - | - | - | A11 | 0.30 | 7.8 | C6 | 0.40 | 6.4 | - | - | - | |
| 27000 | A7 | 0.40 | 6.3 | C6 | 0.60 | 5.8 | - | - | - | A10 | 0.40 | 7.1 | C6 | 0.50 | 6.3 | - | - | - | - | - | C7 | 0.40 | 7.4 | - | - | - | - | - | - | |
| 33000 | A8 | 0.40 | 7.2 | C6 | 0.60 | 6.4 | - | - | - | A11 | 0.40 | 8.2 | C7 | 0.50 | 7.3 | - | - | - | - | - | C8 | 0.40 | 8.4 | D7 | 0.50 | 8.0 | - | - | - | |
| 39000 | A9 | 0.50 | 7.3 | C6 | 0.60 | 6.9 | - | - | - | C8 | 0.50 | 8.1 | D7 | 0.60 | 8.0 | - | - | - | - | - | C9 | 0.40 | 9.5 | D7 | 0.50 | 8.7 | - | - | - | |
| 47000 | A11 | 0.50 | 8.7 | C7 | 0.60 | 7.9 | - | - | - | C9 | 0.50 | 9.3 | D7 | 0.60 | 8.8 | - | - | - | - | - | C11 | 0.40 | 11.3 | D8 | 0.50 | 9.9 | - | - | - | |
| 56000 | C7 | 0.60 | 8.6 | - | - | - | - | - | - | C10 | 0.50 | 10.5 | D7 | 0.60 | 9.6 | - | - | - | - | - | C13 | 0.40 | 12.8 | D9 | 0.50 | 11.2 | E8 | 0.50 | 11.7 | |
| 68000 | C8 | 0.60 | 9.8 | D7 | 0.80 | 9.1 | - | - | - | C11 | 0.50 | 12.0 | D8 | 0.60 | 10.9 | - | - | - | - | - | D10 | 0.50 | 12.7 | E8 | 0.50 | 12.9 | - | - | - | |
| 82000 | C10 | 0.60 | 11.6 | D7 | 0.80 | 10.0 | - | - | - | C13 | 0.50 | 13.7 | D9 | 0.60 | 12.3 | E8 | 0.60 | 12.9 | D11 | 0.50 | 14.5 | E9 | 0.50 | 14.6 | F8 | 0.60 | 13.7 | - | - | |
| 100000 | C11 | 0.60 | 13.3 | D8 | 0.80 | 11.4 | - | - | - | D11 | 0.60 | 14.7 | E9 | 0.60 | 14.7 | F8 | 0.80 | 13.1 | D13 | 0.50 | 16.7 | E10 | 0.50 | 16.6 | F8 | 0.60 | 15.1 | - | - | |
| 120000 | C12 | 0.60 | 14.8 | D9 | 0.80 | 12.9 | E8 | 1.00 | 12.1 | D13 | 0.60 | 16.7 | E10 | 0.60 | 16.6 | D8 | 0.80 | 16.3 | E11 | 0.50 | 18.9 | F9 | 0.60 | 17.1 | - | - | - | - | - | |
| 150000 | D10 | 0.80 | 14.9 | E8 | 1.00 | 13.5 | - | - | - | E11 | 0.60 | 19.3 | F9 | 0.80 | 16.5 | - | - | - | - | E14 | 0.50 | 22.4 | F10 | 0.60 | 19.6 | - | - | - | - | |
| 180000 | C11 | 0.80 | 17.0 | E9 | 1.00 | 15.3 | F8 | 1.00 | 15.7 | E13 | 0.60 | 21.9 | F10 | 0.80 | 18.6 | - | - | - | - | F11 | 0.60 | 22.4 | - | - | - | - | - | - | - | |
| 220000 | C14 | 0.80 | 20.0 | E11 | 1.00 | 18.1 | F9 | 1.00 | 17.9 | F11 | 0.80 | 21.4 | - | - | - | - | - | - | - | F14 | 0.60 | 26.2 | - | - | - | - | - | - | - | |
| 270000 | E12 | 1.0 | 20.3 | F10 | 1.00 | 20.4 | - | - | - | F13 | 0.80 | 24.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 330000 | E14 | 1.0 | 23.5 | F11 | 1.00 | 23.5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 390000 | F13 | 1.0 | 26.4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 470000 | F14 | 1.0 | 29.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

_____ Ripple Current(Ams)85°C120Hz
 _____ tanδ (20°C 120Hz)
 _____ Case code



STANDARD RATINGS 额定技术参数

| WV(V) Cap(μF) | 80 | | | | | | | | | 100 | | | | | | | | |
|------------------|------|------|------|-----|------|------|----|------|------|-----|------|------|-----|------|------|----|------|------|
| | 1800 | - | - | - | - | - | - | - | - | - | A5 | 0.25 | 1.9 | - | - | - | - | - |
| 2200 | - | - | - | - | - | - | - | - | - | A5 | 0.25 | 2.1 | - | - | - | - | - | - |
| 2700 | - | - | - | - | - | - | - | - | - | A5 | 0.25 | 2.3 | - | - | - | - | - | - |
| 3300 | A5 | 0.25 | 2.5 | - | - | - | - | - | - | A5 | 0.25 | 2.6 | - | - | - | - | - | - |
| 3900 | A5 | 0.25 | 2.8 | - | - | - | - | - | - | A6 | 0.25 | 3.0 | - | - | - | - | - | - |
| 4700 | A5 | 0.25 | 3.0 | - | - | - | - | - | - | A7 | 0.25 | 3.5 | - | - | - | - | - | - |
| 5600 | A6 | 0.25 | 3.6 | - | - | - | - | - | - | A8 | 0.25 | 3.9 | C6 | 0.25 | 4.2 | - | - | - |
| 6800 | A6 | 0.25 | 3.9 | - | - | - | - | - | - | A9 | 0.25 | 4.5 | D6 | 0.25 | 7.6 | - | - | - |
| 8200 | A7 | 0.25 | 4.5 | - | - | - | - | - | - | A10 | 0.25 | 5.1 | D6 | 0.25 | 5.1 | - | - | - |
| 10000 | A9 | 0.25 | 5.2 | C6 | 0.30 | 5.0 | - | - | - | A11 | 0.25 | 5.9 | C6 | 0.25 | 5.6 | - | - | - |
| 12000 | A9 | 0.25 | 5.9 | C6 | 0.30 | 5.5 | - | - | - | C7 | 0.25 | 6.4 | - | - | - | - | - | - |
| 15000 | A10 | 0.25 | 6.8 | C6 | 0.30 | 6.2 | - | - | - | C8 | 0.25 | 7.0 | D7 | 0.30 | 7.0 | - | - | - |
| 18000 | A11 | 0.25 | 7.8 | C7 | 0.30 | 7.0 | - | - | - | C9 | 0.25 | 8.3 | D7 | 0.30 | 7.7 | - | - | - |
| 22000 | C8 | 0.30 | 8.0 | D7 | 0.30 | 7.3 | - | - | - | C11 | 0.25 | 10.0 | D8 | 0.3 | 8.7 | - | - | - |
| 27000 | C9 | 0.30 | 9.2 | D7 | 0.40 | 8.1 | - | - | - | C13 | 0.25 | 11.5 | D10 | 0.30 | 10.3 | E8 | 0.35 | 9.7 |
| 33000 | C10 | 0.30 | 10.5 | D8 | 0.40 | 9.3 | - | - | - | D11 | 0.25 | 11.9 | E9 | 0.35 | 11.1 | F8 | 0.35 | 11.4 |
| 39000 | C11 | 0.30 | 12.0 | D9 | 0.40 | 10.4 | E8 | 0.40 | 10.9 | D13 | 0.25 | 13.4 | E10 | 0.35 | 12.4 | F8 | 0.35 | 12.3 |
| 47000 | C13 | 0.30 | 13.6 | D10 | 0.40 | 10.0 | E8 | 0.40 | 11.9 | E11 | 0.35 | 14.2 | F9 | 0.35 | 14.0 | - | - | - |
| 56000 | D11 | 0.40 | 13.4 | E9 | 0.40 | 13.5 | F8 | 0.40 | 13.8 | E1 | 0.35 | 16.0 | F10 | 0.35 | 15.7 | - | - | - |
| 68000 | D13 | 0.40 | 15.4 | E10 | 0.40 | 10.0 | F8 | 0.40 | 15.2 | E16 | 0.35 | 18.8 | F11 | 0.35 | 18.0 | - | - | - |
| 82000 | E11 | 0.40 | 17.5 | F9 | 0.40 | 17.3 | - | - | - | F13 | 0.35 | 20.5 | - | - | - | - | - | - |
| 100000 | E14 | 0.40 | 20.5 | F10 | 0.40 | 19.6 | - | - | - | F16 | 0.35 | 24.0 | - | - | - | - | - | - |
| 120000 | F11 | 0.40 | 22.4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 150000 | F14 | 0.40 | 26.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

| WV(V) Cap(μF) | 160 | | | | | | | | | 180 | | | | | | | | | 200 | | | | | | | | |
|------------------|------|------|------|-----|------|------|----|------|------|-----|------|------|-----|------|------|----|------|------|-----|------|------|-----|------|------|----|------|------|
| | 1000 | - | - | - | - | - | - | - | - | - | A5 | 0.25 | 1.9 | - | - | - | - | - | - | A5 | 0.25 | 1.9 | - | - | - | - | - |
| 1200 | A5 | 0.25 | 2.0 | - | - | - | - | - | - | A6 | 0.25 | 2.2 | - | - | - | - | - | - | A6 | 0.25 | 2.2 | - | - | - | - | - | - |
| 1500 | - | - | - | - | - | - | - | - | - | A6 | 0.25 | 2.5 | - | - | - | - | - | - | A7 | 0.25 | 2.6 | C6 | 0.25 | 2.9 | - | - | - |
| 1800 | A6 | 0.25 | 2.7 | - | - | - | - | - | - | A7 | 0.25 | 2.8 | C6 | 0.25 | 3.1 | - | - | - | A8 | 0.25 | 3.0 | C6 | 0.25 | 3.2 | - | - | - |
| 2200 | A7 | 0.25 | 3.1 | C6 | 0.25 | 3.4 | - | - | - | A8 | 0.25 | 3.2 | C6 | 0.25 | 3.4 | - | - | - | A9 | 0.25 | 3.4 | C6 | 0.25 | 3.5 | - | - | - |
| 2700 | A8 | 0.25 | 3.5 | C6 | 0.25 | 3.8 | - | - | - | A9 | 0.25 | 3.7 | C6 | 0.25 | 3.8 | - | - | - | A10 | 0.25 | 3.9 | C6 | 0.25 | 3.9 | - | - | - |
| 3300 | A10 | 0.25 | 4.2 | C6 | 0.25 | 4.2 | - | - | - | A11 | 0.25 | 4.5 | C6 | 0.25 | 4.2 | - | - | - | A11 | 0.25 | 4.5 | C7 | 0.25 | 4.5 | - | - | - |
| 3900 | A11 | 0.25 | 4.8 | C6 | 0.25 | 4.5 | - | - | - | C7 | 0.25 | 4.8 | - | - | - | - | - | - | C8 | 0.25 | 5.0 | D7 | 0.25 | 5.3 | - | - | - |
| 4700 | C7 | 0.25 | 5.2 | - | - | - | - | - | - | C8 | 0.25 | 5.4 | D7 | 0.25 | 5.7 | - | - | - | C9 | 0.25 | 5.7 | D7 | 0.25 | 6.4 | - | - | - |
| 5600 | C8 | 0.25 | 5.9 | D7 | 0.25 | 6.2 | - | - | - | C9 | 0.25 | 6.1 | D7 | 0.25 | 6.3 | - | - | - | C10 | 0.25 | 6.4 | D7 | 0.25 | 6.4 | - | - | - |
| 6800 | C9 | 0.25 | 6.7 | D7 | 0.25 | 6.8 | - | - | - | C10 | 0.25 | 7.0 | D7 | 0.25 | 6.9 | - | - | - | C11 | 0.50 | 7.4 | D8 | 0.25 | 7.3 | E8 | 0.25 | 8.2 |
| 8200 | C10 | 0.25 | 7.6 | D7 | 0.25 | 7.5 | - | - | - | C11 | 0.25 | 8.0 | D8 | 0.25 | 8.1 | E8 | 0.25 | 8.1 | C13 | 0.25 | 8.4 | D9 | 0.25 | 8.3 | F8 | 0.25 | 9.4 |
| 10000 | C11 | 0.25 | 8.8 | D9 | 0.25 | 8.8 | E8 | 0.25 | 8.8 | C13 | 0.25 | 9.2 | D10 | 0.25 | 9.2 | E8 | 0.25 | 8.9 | D11 | 0.25 | 9.8 | E9 | 0.25 | 9.3 | F8 | 0.25 | 10.2 |
| 12000 | C13 | 0.25 | 10.0 | D10 | 0.25 | 10.0 | E8 | 0.25 | 9.7 | D11 | 0.25 | 10.5 | E9 | 0.25 | 10.1 | F8 | 0.25 | 10.2 | D13 | 0.25 | 11.2 | E10 | 0.25 | 10.5 | - | - | - |
| 15000 | D11 | 0.25 | 11.6 | E9 | 0.25 | 11.2 | F8 | 0.25 | 11.5 | D13 | 0.25 | 12.2 | E10 | 0.25 | 11.6 | F8 | 0.25 | 11.5 | E11 | 0.25 | 12.3 | F9 | 0.25 | 11.8 | - | - | - |
| 18000 | D13 | 0.25 | 13.2 | E10 | 0.25 | 12.6 | F8 | 0.25 | 12.6 | E11 | 0.25 | 13.2 | F9 | 0.25 | 13.3 | - | - | - | E13 | 0.25 | 13.9 | F10 | 0.25 | 11.3 | - | - | - |
| 22000 | E11 | 0.25 | 14.5 | F9 | 0.25 | 14.3 | - | - | - | E14 | 0.25 | 15.5 | F10 | 0.25 | 14.7 | - | - | - | F11 | 0.25 | 15.3 | - | - | - | - | - | - |
| 27000 | E14 | 0.25 | 17.0 | F10 | 0.25 | 16.3 | - | - | - | F11 | 0.25 | 17.0 | - | - | - | - | - | - | F14 | 0.25 | 18.0 | - | - | - | - | - | - |
| 33000 | F13 | 0.25 | 19.4 | - | - | - | - | - | - | F14 | 0.25 | 19.9 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 39000 | F14 | 0.25 | 21.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



| WV(V) Cap(μF) | 250 | | | | | | | | | 315 | | | | | | | | | 350 | | | | | | | | |
|------------------|-----|------|------|-----|------|------|----|------|------|-----|------|------|-----|------|------|----|------|------|-----|------|------|-----|------|------|----|------|------|
| | 390 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A5 | 0.20 | 1.9 | - | - | - | - | - | - |
| 470 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | A6 | 0.20 | 2.2 | - | - | - | - | - | - |
| 560 | - | - | - | - | - | - | - | - | - | A5 | 0.20 | 1.9 | - | - | - | - | - | - | A6 | 0.20 | 2.4 | - | - | - | - | - | - |
| 680 | A5 | 0.20 | 2.0 | - | - | - | - | - | - | A6 | 0.20 | 2.3 | - | - | - | - | - | - | A7 | 0.20 | 2.8 | C6 | 0.20 | 2.9 | - | - | - |
| 820 | A6 | 0.20 | 2.4 | - | - | - | - | - | - | A7 | 0.20 | 2.7 | - | - | - | - | - | - | A8 | 0.20 | 3.1 | C6 | 0.20 | 3.2 | - | - | - |
| 1000 | A7 | 0.20 | 2.7 | - | - | - | - | - | - | A8 | 0.20 | 3.0 | C6 | 0.20 | 3.1 | - | - | - | A9 | 0.20 | 3.6 | C6 | 0.20 | 3.5 | - | - | - |
| 1200 | A8 | 0.20 | 3.1 | C6 | 0.20 | 3.3 | - | - | - | A9 | 0.20 | 3.5 | C6 | 0.20 | 3.4 | - | - | - | A10 | 0.20 | 4.1 | C6 | 0.20 | 3.9 | - | - | - |
| 1500 | A9 | 0.20 | 3.6 | C6 | 0.20 | 3.7 | - | - | - | A10 | 0.20 | 4.0 | C6 | 0.20 | 3.8 | - | - | - | C7 | 0.20 | 4.5 | - | - | - | - | - | |
| 1800 | A10 | 0.20 | 4.1 | C6 | 0.20 | 4.1 | - | - | - | A11 | 0.20 | 4.6 | C7 | 0.20 | 4.3 | - | - | - | C8 | 0.20 | 5.1 | D7 | 0.20 | 5.4 | - | - | - |
| 2200 | A11 | 0.20 | 4.8 | C7 | 0.20 | 4.7 | - | - | - | C8 | 0.20 | 4.9 | D7 | 0.20 | 5.3 | - | - | - | C9 | 0.20 | 5.8 | D7 | 0.20 | 6.0 | - | - | - |
| 2700 | C8 | 0.20 | 5.3 | D7 | 0.20 | 5.8 | - | - | - | C9 | 0.20 | 5.7 | D7 | 0.20 | 5.9 | - | - | - | C10 | 0.50 | 6.7 | D8 | 0.20 | 6.9 | - | - | - |
| 3300 | C9 | 0.20 | 6.1 | D7 | 0.20 | 6.4 | - | - | - | C10 | 0.20 | 6.5 | D8 | 0.20 | 6.7 | - | - | - | C11 | 0.20 | 7.7 | D9 | 0.20 | 7.9 | E8 | 0.20 | 8.2 |
| 3900 | C10 | 0.20 | 6.9 | D7 | 0.20 | 6.9 | - | - | - | C11 | 0.20 | 7.3 | D9 | 0.20 | 7.5 | E8 | 0.20 | 7.8 | D10 | 0.20 | 8.8 | E8 | 0.20 | 8.9 | - | - | - |
| 4700 | C11 | 0.20 | 7.9 | D8 | 0.20 | 7.8 | - | - | - | C13 | 0.20 | 8.4 | D10 | 0.20 | 8.5 | E8 | 0.20 | 8.6 | D11 | 0.20 | 10.1 | E9 | 0.20 | 10.1 | - | - | - |
| 5600 | C13 | 0.20 | 12.0 | D9 | 0.20 | 8.9 | E8 | 0.20 | 8.7 | D11 | 0.20 | 9.7 | E9 | 0.20 | 9.7 | F8 | 0.20 | 10.0 | D13 | 0.20 | 11.4 | E10 | 0.20 | 11.4 | F8 | 0.20 | 11.4 |
| 6800 | D11 | 0.20 | 10.5 | E8 | 0.20 | 9.5 | - | - | - | D13 | 0.20 | 11.1 | E10 | 0.20 | 11.0 | F8 | 0.20 | 11.0 | E11 | 0.20 | 13.1 | F9 | 0.20 | 12.9 | - | - | - |
| 8200 | D13 | 0.20 | 12.0 | E9 | 0.20 | 10.8 | F8 | 0.20 | 10.9 | E11 | 0.20 | 12.6 | F9 | 0.20 | 12.4 | - | - | - | E14 | 0.20 | 15.2 | F10 | 0.20 | 14.6 | - | - | - |
| 10000 | D14 | 0.20 | 13.5 | E11 | 0.20 | 12.8 | F8 | 0.20 | 12.1 | E14 | 0.20 | 14.7 | F10 | 0.20 | 14.1 | - | - | - | F11 | 0.20 | 16.8 | - | - | - | - | - | |
| 12000 | E13 | 0.20 | 14.6 | F9 | 0.20 | 13.6 | - | - | - | F11 | 0.20 | 16.1 | - | - | - | - | - | - | F14 | 0.20 | 19.4 | - | - | - | - | - | |
| 15000 | E14 | 0.20 | 16.6 | F11 | 0.20 | 16.3 | - | - | - | F14 | 0.20 | 19.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 18000 | F13 | 0.20 | 18.5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 22000 | F16 | 0.20 | 21.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

| WV(V) Cap(μF) | 400 | | | | | | | | | 450 | | | | | | | | | | | | | | | | |
|------------------|-----|------|------|-----|------|------|----|------|-----|-----|------|------|-----|------|------|----|------|-----|---|---|---|---|---|---|---|---|
| | 270 | - | - | - | - | - | - | - | - | - | A5 | 0.25 | 1.5 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 330 | A5 | 0.20 | 1.7 | - | - | - | - | - | - | A6 | 0.25 | 1.8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 390 | A6 | 0.20 | 2.0 | - | - | - | - | - | - | A7 | 0.25 | 2.0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 470 | A6 | 0.20 | 2.2 | - | - | - | - | - | - | A7 | 0.25 | 2.2 | C6 | 0.25 | 2.3 | - | - | - | - | - | - | - | - | - | - | - |
| 560 | A7 | 0.20 | 2.5 | - | - | - | - | - | - | A8 | 0.25 | 2.5 | C6 | 0.25 | 2.6 | - | - | - | - | - | - | - | - | - | - | - |
| 680 | A8 | 0.20 | 2.9 | C6 | 0.20 | 2.9 | - | - | - | A9 | 0.25 | 2.9 | C6 | 0.25 | 2.8 | - | - | - | - | - | - | - | - | - | - | - |
| 820 | A9 | 0.20 | 3.3 | C6 | 0.20 | 3.2 | - | - | - | A11 | 0.25 | 3.4 | C7 | 0.25 | 3.2 | - | - | - | - | - | - | - | - | - | - | - |
| 1000 | A10 | 0.20 | 3.7 | C6 | 0.20 | 3.5 | - | - | - | C7 | 0.25 | 3.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1200 | A11 | 0.20 | 4.3 | C7 | 0.20 | 4.0 | - | - | - | C8 | 0.25 | 4.0 | D7 | 0.25 | 4.3 | - | - | - | - | - | - | - | - | - | - | - |
| 1500 | C8 | 0.20 | 4.6 | D7 | 0.20 | 5.0 | - | - | - | C9 | 0.25 | 4.7 | D7 | 0.25 | 4.8 | - | - | - | - | - | - | - | - | - | - | - |
| 1800 | C9 | 0.20 | 5.3 | D7 | 0.20 | 5.4 | - | - | - | C11 | 0.25 | 5.5 | D8 | 0.25 | 5.4 | - | - | - | - | - | - | - | - | - | - | - |
| 2200 | C10 | 0.20 | 6.0 | D8 | 0.20 | 6.2 | - | - | - | C13 | 0.25 | 6.3 | D9 | 0.25 | 6.2 | E8 | 0.25 | 6.5 | - | - | - | - | - | - | - | - |
| 2700 | C11 | 0.20 | 7.0 | D9 | 0.20 | 7.1 | E8 | 0.20 | 7.4 | D10 | 0.25 | 7.1 | E8 | 0.25 | 7.2 | - | - | - | - | - | - | - | - | - | - | - |
| 3300 | D10 | 0.20 | 8.1 | E8 | 0.20 | 8.2 | - | - | - | D11 | 0.25 | 8.2 | E9 | 0.25 | 8.2 | F8 | 0.25 | 8.5 | - | - | - | - | - | - | - | - |
| 3900 | D11 | 0.20 | 9.2 | E9 | 0.20 | 9.2 | F8 | 0.20 | 9.5 | D12 | 0.25 | 9.5 | E11 | 0.25 | 9.6 | F8 | 0.25 | 9.2 | - | - | - | - | - | - | - | - |
| 4700 | D13 | 0.20 | 10.5 | F8 | 0.20 | 10.4 | - | - | - | E13 | 0.25 | 10.9 | F8 | 0.25 | 10.4 | - | - | - | - | - | - | - | - | - | - | - |
| 5600 | E11 | 0.20 | 11.9 | D9 | 0.20 | 11.7 | - | - | - | E14 | 0.25 | 12.2 | F10 | 0.25 | 11.7 | - | - | - | - | - | - | - | - | - | - | - |
| 5800 | E14 | 0.20 | 13.8 | F10 | 0.20 | 13.3 | - | - | - | F11 | 0.25 | 13.4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 8200 | F11 | 0.20 | 15.2 | - | - | - | - | - | - | F14 | 0.25 | 15.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 10000 | F14 | 0.20 | 17.7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



CD136 series

Load life of 2000 hours at 105°C

105°C 2000 小时负荷寿命

High ripple current

耐高纹波

Used for power supplies, general-purpose inverter

用于工业电源、变频器，通用型变频器

Terminal type: U type, Screw

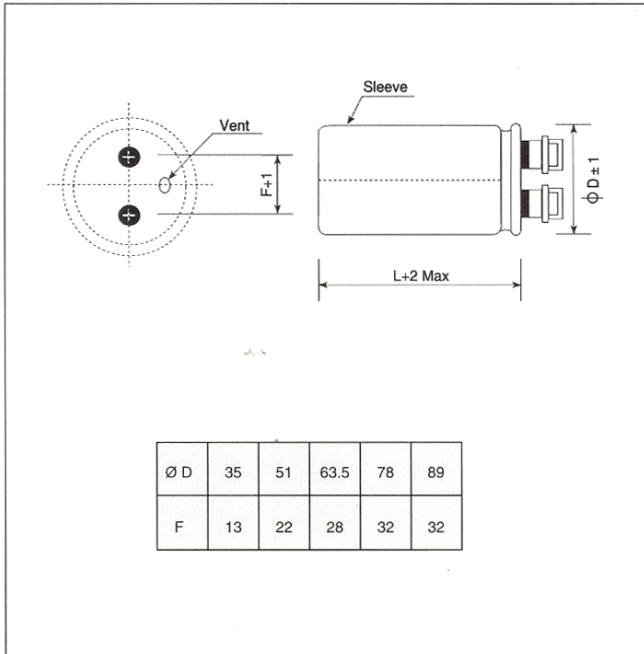
端子型式：可 U 型、螺柱

SPECIFICATIONS 特性说明

| Item 项目 | Characteristics 特性 | | | | | | | | | |
|--|--|--|------------|------------|------------------------|---|----------------------------|--|------------------------------|---|
| Rated Voltage Range(V) 额定电压范围 | 10~100 | 160~400 | | | | | | | | |
| Operating Temperature Range(°C) 工作温度范围 | -40~+105 | -25+105 | | | | | | | | |
| Capacitance Tolerance(20°C, 120Hz) 容量偏差 | ± 20% | | | | | | | | | |
| Leakage Current 漏电流 | 0.02CV or 5mA whichever is smaller. (at 20°C, after 5 minutes) C: Nominal Capacitance 标准容量(μF) | 0.02CV or 5mA, 取较小值(5 分钟, 20°C) V: Rated Voltage 额定电压 (V) | | | | | | | | |
| Dissipation Factor(20°C, 120Hz) 损耗角正切值 | Tanδ shall not exceed the values shown in the table of STSNDSDR RATINGS Tan 不超过额定技术参数中的数值 | | | | | | | | | |
| Temperature Stability(120Hz) 温度稳定性 | 10~100VDC: Capacitance at -40°C shall not be less than 60% of the 25°C value 10~100VDC: -40°C 条件下的容量值不低于 25°C 时容量值的 60% 160~400VDC: Capacitance at -25°C shall not be less than 70% of the 25°C value 160~400VDC: -25°C 条件下的容量值不低于 25°C 时容量值的 60% | | | | | | | | | |
| Load Life (105°C) 耐久性 | <table border="1"> <tr> <td>Time 时间</td> <td>2000 hours</td> </tr> <tr> <td>Leakage current 漏电流</td> <td>Not more than the specified value 不大于规定值</td> </tr> <tr> <td>Capacitance change 容量变化</td> <td>Within ± 20% of the initial value. 在初始值的 ± 20% 以内</td> </tr> <tr> <td>Dissipation Factor 损耗角正切值</td> <td>Not more than 200% of the specified value 不大于规定值的 200%</td> </tr> </table> | | Time 时间 | 2000 hours | Leakage current 漏电流 | Not more than the specified value 不大于规定值 | Capacitance change 容量变化 | Within ± 20% of the initial value. 在初始值的 ± 20% 以内 | Dissipation Factor 损耗角正切值 | Not more than 200% of the specified value 不大于规定值的 200% |
| Time 时间 | 2000 hours | | | | | | | | | |
| Leakage current 漏电流 | Not more than the specified value 不大于规定值 | | | | | | | | | |
| Capacitance change 容量变化 | Within ± 20% of the initial value. 在初始值的 ± 20% 以内 | | | | | | | | | |
| Dissipation Factor 损耗角正切值 | Not more than 200% of the specified value 不大于规定值的 200% | | | | | | | | | |
| Shelf Life (105°C) 高温贮存 | <table border="1"> <tr> <td>Time 时间</td> <td>1000 hours</td> </tr> <tr> <td>Leakage current 漏电流</td> <td>Not more than the specified value 不大于规定值</td> </tr> <tr> <td>Capacitance change 容量变化</td> <td>Within ± 20% of the initial value. 在初始值的 ± 20% 以内</td> </tr> <tr> <td>Dissipation Factor 损耗角正切值</td> <td>Not more than 200% of the specified value 不大于规定值的 200%</td> </tr> </table> | | Time 时间 | 1000 hours | Leakage current 漏电流 | Not more than the specified value 不大于规定值 | Capacitance change 容量变化 | Within ± 20% of the initial value. 在初始值的 ± 20% 以内 | Dissipation Factor 损耗角正切值 | Not more than 200% of the specified value 不大于规定值的 200% |
| Time 时间 | 1000 hours | | | | | | | | | |
| Leakage current 漏电流 | Not more than the specified value 不大于规定值 | | | | | | | | | |
| Capacitance change 容量变化 | Within ± 20% of the initial value. 在初始值的 ± 20% 以内 | | | | | | | | | |
| Dissipation Factor 损耗角正切值 | Not more than 200% of the specified value 不大于规定值的 200% | | | | | | | | | |



DIMENSIONS(mm) 外形尺寸



MULTIPLIER FOR RIPPLE CURRENT 纹波电流倍乘因子

Frequency coefficient 频率因子

| | | | | | |
|---------------|-------|-----|------|------|------|
| Frequency(Hz) | 50.60 | 120 | 300 | 1K | 10K |
| Factor | 0.8 | 1.0 | 1.10 | 1.20 | 1.50 |

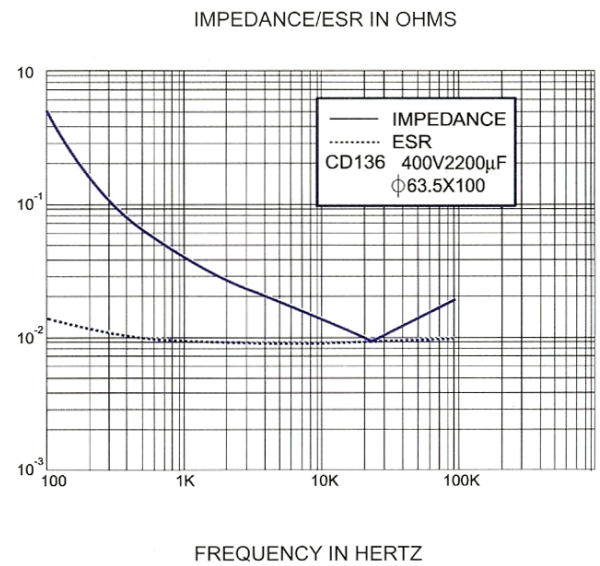
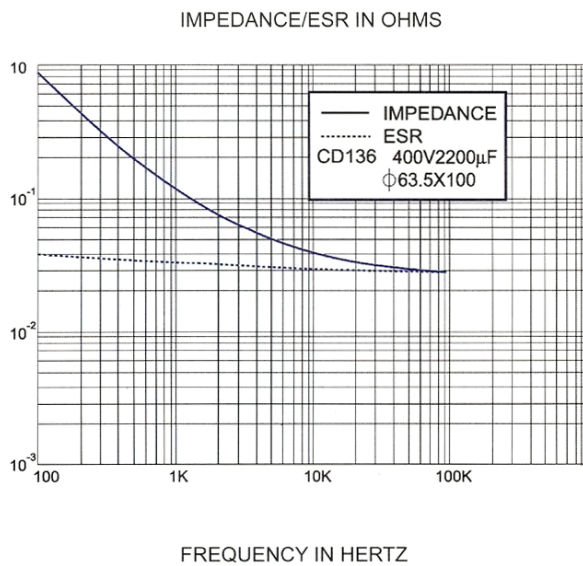
Temperature coefficient 温度因子

| | | | |
|-----------------|-----|-----|-------|
| Temperature(°C) | +70 | +85 | +105w |
| Factor | 2.1 | 1.7 | 1.0 |

CASE CODE (mm) 尺寸代码

| | | | | | | | | |
|-----|------|------|-----|-----|-----|-----|-----|-----|
| | A5 | A6 | A8 | A10 | A12 | C8 | C10 | C12 |
| ∅D: | 35 | 35 | 35 | 35 | 35 | 50 | 50 | 50 |
| L: | 50 | 60 | 80 | 100 | 120 | 80 | 100 | 120 |
| | D10 | D12 | E10 | E12 | E13 | E14 | F14 | |
| ∅D: | 63.5 | 63.5 | 76 | 76 | 76 | 76 | 89 | |
| L: | 100 | 120 | 100 | 120 | 130 | 140 | 140 | |

TYPICAL CURVES 典型曲线





Aluminum Electrolytic Capacitors

| VV(V) Cap(μF) | 10 | | | 16 | | | 25 | | | 35 | | | 50 | | | 63 | | | 80 | | | |
|------------------|------|------|------|-----|------|------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 2200 | | | | | | | | | | | | | | | | | | A5 | 2.4 | 0.15 | |
| 2700 | | | | | | | | | | | | | | | | | A5 | 2.3 | 0.20 | A5 | 2.7 | 0.15 |
| 3300 | | | | | | | | | | | | | | | | | A5 | 2.5 | 0.20 | A5 | 3.0 | 0.15 |
| 3900 | | | | | | | | | | | | | A5 | 2.8 | 0.20 | A5 | 2.8 | 0.20 | A3 | 3.4 | 0.15 | |
| 4700 | | | | | | | | | | | | | A5 | 3.1 | 0.20 | A5 | 3.1 | 0.20 | A6 | 3.7 | 0.15 | |
| 5600 | | | | | | | | | | | | | A5 | 3.3 | 0.20 | A6 | 3.5 | 0.20 | A8 | 4.5 | 0.15 | |
| 6800 | | | | | | | | | | | | | A5 | 3.3 | 0.25 | A6 | 3.9 | 0.20 | A8 | 4.9 | 0.15 | |
| 8200 | | | | | | | | | | A5 | 3.3 | 0.30 | A6 | 3.8 | 0.25 | A8 | 4.7 | 0.20 | A10 | 5.1 | 0.20 | |
| 10000 | | | | | | | | | | A5 | 3.6 | 0.30 | A8 | 4.6 | 0.25 | A8 | 4.7 | 0.25 | A12 | 6.1 | 0.20 | |
| 12000 | | | | | | | | A5 | 3.7 | 0.35 | A6 | 4.2 | 0.30 | A8 | 5.1 | 0.25 | A10 | 5.5 | 0.25 | C8 | 6.7 | 0.20 |
| 15000 | | | | | | | | A5 | 4.1 | 0.35 | A6 | 4.7 | 0.30 | A8 | 5.7 | 0.25 | A12 | 6.6 | 0.25 | C10 | 8.3 | 0.20 |
| 18000 | | | | A5 | 4.2 | 0.40 | A6 | 4.8 | 0.35 | A8 | 5.7 | 0.30 | A10 | 6.7 | 0.25 | C8 | 7.4 | 0.25 | C12 | 11.0 | 0.20 | |
| 22000 | | | | A5 | 4.7 | 0.40 | A6 | 5.3 | 0.35 | A8 | 6.3 | 0.30 | A12 | 8.1 | 0.25 | C10 | 9.0 | 0.25 | C12 | 11.0 | 0.20 | |
| 27000 | A5 | 4.9 | 0.45 | A6 | 5.5 | 0.40 | A8 | 6.4 | 0.35 | A10 | 7.5 | 0.30 | C8 | 9.1 | 0.25 | C12 | 10.9 | 0.25 | D10 | 11.4 | 0.25 | |
| 33000 | A5 | 5.1 | 0.50 | A5 | 5.7 | 0.45 | A8 | 6.7 | 0.40 | A12 | 9.0 | 0.30 | C10 | 11.1 | 0.25 | C12 | 12.0 | 0.25 | E10 | 13.9 | 0.25 | |
| 39000 | A6 | 5.9 | 0.50 | A8 | 6.8 | 0.46 | A10 | 7.8 | 0.40 | C8 | 9.2 | 0.35 | C12 | 13.1 | 0.25 | D10 | 12.5 | 0.30 | E10 | 13.9 | 0.30 | |
| 47000 | A8 | 7.1 | 0.50 | A8 | 7.1 | 0.50 | A12 | 9.3 | 0.40 | C10 | 11.2 | 0.35 | C12 | 13.9 | 0.30 | D12 | 14.9 | 0.30 | E12 | 16.5 | 0.30 | |
| 56000 | A8 | 7.1 | 0.60 | A10 | 8.4 | 0.50 | C8 | 9.7 | 0.45 | C10 | 11.4 | 0.40 | D10 | 13.9 | 0.35 | D12 | 16.3 | 0.30 | E12 | 18.1 | 0.30 | |
| 68000 | A10 | 8.5 | 0.60 | A10 | 8.8 | 0.55 | C10 | 11.2 | 0.45 | C12 | 13.6 | 0.40 | D12 | 16.6 | 0.35 | E12 | 18.4 | 0.35 | E14 | 19.7 | 0.35 | |
| 82000 | A10 | 8.9 | 0.65 | C8 | 10.7 | 0.55 | C10 | 11.2 | 0.50 | D10 | 14.8 | 0.45 | E12 | 18.9 | 0.40 | E14 | 20.0 | 0.40 | F14 | 22.1 | 0.40 | |
| 100000 | A12 | 10.7 | 0.65 | C8 | 10.8 | 0.65 | C12 | 14.8 | 0.50 | D12 | 17.6 | 0.45 | E12 | 19.5 | 0.45 | E14 | 20.0 | 0.50 | | | | |
| 120000 | C8 | 11.0 | 0.75 | C10 | 13.1 | 0.65 | D10 | 14.9 | 0.65 | D12 | 17.6 | 0.55 | E12 | 19.5 | 0.55 | F14 | 21.8 | 0.60 | | | | |
| 150000 | C10 | 13.2 | 0.80 | C12 | 15.3 | 0.70 | D12 | 17.9 | 0.65 | E12 | 19.8 | 0.65 | F14 | 23.9 | 0.60 | | | | | | | |
| 180000 | C12 | 15.7 | 0.80 | C12 | 15.7 | 0.80 | D12 | 17.9 | 0.80 | E12 | 19.8 | 0.80 | F14 | 23.9 | 0.75 | | | | | | | |
| 220000 | C12 | 16.8 | 0.85 | D12 | 19.2 | 0.85 | E12 | 21.3 | 0.85 | E14 | 23.4 | 0.80 | | | | | | | | | | |
| 270000 | D12 | 19.6 | 1.00 | D12 | 19.6 | 1.00 | E12 | 21.7 | 1.00 | F14 | 25.5 | 1.00 | | | | | | | | | | |
| 330000 | D12 | 19.7 | 1.20 | E12 | 21.1 | 1.30 | E14 | 23.4 | 1.20 | | | | | | | | | | | | | |
| 390000 | E12 | 21.3 | 1.50 | E12 | 21.3 | 1.50 | F14 | 24.9 | 1.50 | | | | | | | | | | | | | |
| 470000 | E12 | 21.4 | 1.80 | E14 | 24.2 | 1.60 | | | | | | | | | | | | | | | | |
| 560000 | E14 | 23.6 | 2.00 | F14 | 28.1 | 2.00 | | | | | | | | | | | | | | | | |
| 680000 | F14 | 26.0 | 2.40 | F14 | 28.5 | 2.40 | | | | | | | | | | | | | | | | |

tanδ (20°C 120Hz)

Ripple Current(Ams)105°C120Hz

Case code



| WV(V) Cap(μF) | 100 | | | 160 | | | 200 | | | 250 | | | 315 | | | 350 | | | 400 | | |
|------------------|-----|------|------|-----|------|------|-----|------|------|------|------|------|-----|------|------|-----|------|------|-----|------|------|
| | 180 | | | | | | | | | | | | A5 | 0.8 | 0.10 | A5 | 0.8 | 0.10 | A5 | 0.8 | 0.10 |
| 220 | | | | | | | | | | | | A5 | 0.9 | 0.10 | A5 | 0.9 | 0.10 | A5 | .9 | 0.10 | |
| 270 | | | | | | | | | A5 | 0.80 | 0.15 | A5 | 1.0 | 0.10 | A5 | 1.0 | 0.10 | A5 | 1.0 | 0.10 | |
| 330 | | | | | | | A5 | 0.9 | 0.15 | A5 | 0.9 | 0.15 | A5 | 1.1 | 0.10 | A5 | 1.1 | 0.10 | A3 | 1.2 | 0.10 |
| 390 | | | | | | | A5 | 1.0 | 0.15 | A5 | 1.0 | 0.15 | A5 | 1.2 | 0.10 | A6 | 1.3 | 0.10 | A6 | 1.3 | 0.10 |
| 470 | | | | | | | A5 | 1.1 | 0.15 | A5 | 1.1 | 0.15 | A6 | 1.4 | 0.10 | A6 | 1.4 | 0.10 | A6 | 1.4 | 0.10 |
| 560 | | | | A5 | 1.2 | 0.15 | A5 | 1.2 | 0.15 | A5 | 1.2 | 0.15 | A6 | 1.5 | 0.10 | A8 | 1.6 | 0.10 | A8 | 1.4 | 0.10 |
| 680 | | | | A5 | 1.3 | 0.15 | A5 | 1.3 | 0.15 | A6 | 1.4 | 0.15 | A8 | 1.7 | 0.10 | A8 | 1.6 | 0.15 | A10 | 1.7 | 0.15 |
| 820 | | | | A5 | 1.4 | 0.15 | A5 | 1.7 | 0.15 | A8 | 1.6 | 0.15 | A8 | 1.7 | 0.15 | A10 | 1.8 | 0.15 | A12 | 2.0 | 0.15 |
| 1000 | | | | A5 | 1.6 | 0.15 | A6 | 1.7 | 0.15 | A8 | 1.6 | 0.20 | A10 | 2.0 | 0.15 | A12 | 2.2 | 0.15 | C8 | 2.2 | 0.15 |
| 1200 | | | | A6 | 1.9 | 0.15 | A6 | 1.9 | 0.15 | A8 | 1.8 | 0.20 | A12 | 2.4 | 0.15 | C8 | 2.4 | 0.15 | C10 | 2.7 | 0.15 |
| 1500 | | | | A6 | 2.1 | 0.15 | A8 | 2.3 | 0.15 | A10 | 2.1 | 0.20 | C8 | 2.7 | 0.15 | C10 | 3.0 | 0.15 | C10 | 3.3 | 0.15 |
| 1800 | A5 | 2.7 | 0.10 | A8 | 2.5 | 0.15 | A8 | 2.5 | 0.15 | A12 | 2.5 | 0.20 | C10 | 3.3 | 0.15 | C12 | 3.6 | 0.15 | | | 0.15 |
| 2200 | A5 | 3.0 | 0.10 | A8 | 2.8 | 0.15 | A10 | 3.0 | 0.15 | C8 | 2.9 | 0.20 | C12 | 4.0 | 0.15 | C12 | 4.0 | 0.15 | D10 | 4.2 | 0.15 |
| 2700 | A6 | 3.5 | 0.10 | A10 | 3.3 | 0.15 | A12 | 3.6 | 0.15 | C10 | 3.5 | 0.20 | C12 | 4.4 | 0.15 | D10 | 4.6 | 0.15 | | | |
| 3300 | A8 | 4.2 | 0.10 | A12 | 3.8 | 0.15 | C8 | 4.1 | 0.15 | C12 | 4.2 | 0.20 | D10 | 5.1 | 0.15 | | | | D12 | 5.5 | 0.15 |
| 3900 | A8 | 4.2 | 0.12 | C8 | 3.8 | 0.20 | C10 | 4.9 | 0.15 | C12 | 4.6 | 0.20 | D12 | 6.0 | 0.15 | E12 | 6.7 | 0.15 | | | |
| 4700 | A10 | 5.0 | 0.12 | C10 | 4.6 | 0.20 | D10 | 5.3 | 0.20 | D12 | 5.7 | 0.20 | E10 | 6.8 | 0.15 | | | | E12 | 7.6 | 0.15 |
| 5600 | A10 | 5.4 | 0.12 | C10 | 5.1 | 0.20 | D10 | 5.8 | 0.20 | D12 | 6.3 | 0.20 | E12 | 8.0 | 0.15 | E13 | 8.3 | 0.15 | D14 | 9.4 | 0.15 |
| 6800 | A12 | 5.8 | 0.15 | C12 | 6.1 | 0.20 | D12 | 6.9 | 0.20 | E12 | 7.7 | 0.20 | E13 | 9.2 | 0.15 | E14 | 9.5 | 0.15 | D14 | 10.4 | 0.15 |
| 8200 | C8 | 6.4 | 0.15 | D10 | 7.0 | 0.20 | D12 | 7.6 | 0.20 | E12 | 8.4 | 0.20 | F14 | 11.4 | 0.15 | F14 | 11.4 | 0.15 | | | |
| 100000 | C10 | 7.8 | 0.15 | D12 | 8.4 | 0.20 | E12 | 9.3 | 0.20 | E14 | 10.0 | 0.20 | F14 | 12.6 | 0.15 | | | | | | |
| 12000 | C12 | 9.3 | 0.15 | E10 | 9.4 | 0.20 | E14 | 10.2 | 0.20 | F14 | 11.9 | 0.20 | | | | | | | | | |
| 15000 | C12 | 10.4 | 0.15 | E12 | 11.4 | 0.20 | E14 | 12.2 | 0.20 | | | | | | | | | | | | |
| 18000 | D10 | 10.4 | 0.20 | E14 | 13.4 | 0.20 | F14 | 13.1 | 0.25 | | | | | | | | | | | | |
| 22000 | D12 | 12.5 | 0.20 | F14 | 14.5 | 0.25 | | | | | | | | | | | | | | | |
| 27000 | E12 | 13.7 | 0.25 | F14 | 16.0 | 0.25 | | | | | | | | | | | | | | | |
| 33000 | E12 | 15.2 | 0.25 | | | | | | | | | | | | | | | | | | |
| 39000 | E14 | 16.1 | 0.30 | | | | | | | | | | | | | | | | | | |
| 47000 | F14 | 19.3 | 0.30 | | | | | | | | | | | | | | | | | | |
| 56000 | F14 | 21.1 | 0.30 | | | | | | | | | | | | | | | | | | |

tan δ (20°C 120Hz)

Ripple Current(Ams)105°C120Hz

Case code