

IP (CD295)



⊙ High ripple current ,Smaller size ,Load life of 5000 hours at 85°C, Used in PCB Mounting.

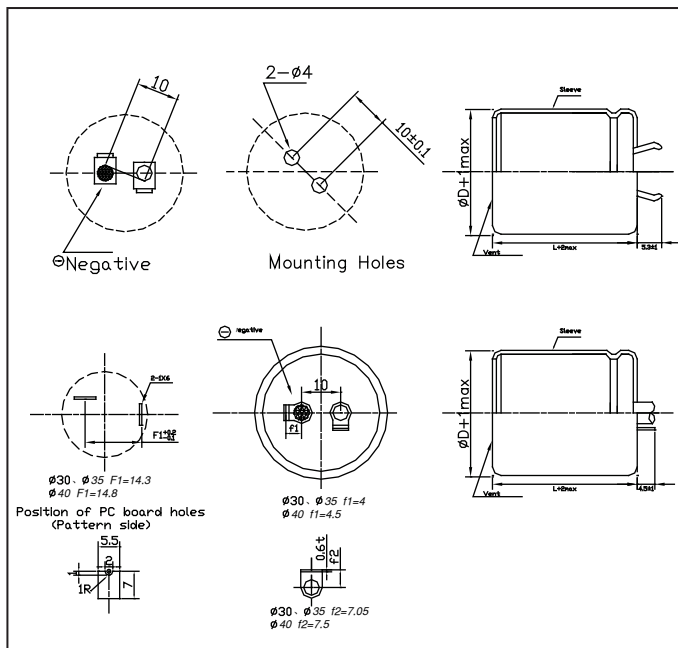
⊙ Adapted to the ROHS directive (2002/95/EC).

■ Specifications

| Item | Performance Characteristics | | | | | | | | |
|--|--|---------------|-------|--------|---------|---------|--------|---------|---------|
| Operating temperature range | -40°C ~ +85°C | -25°C ~ +85°C | | | | | | | |
| Rated voltage range | 10 ~ 400 V | 450 | | | | | | | |
| Capacitance tolerance | ±20% (120Hz, +20°C) | | | | | | | | |
| Leakage current | $I \leq 0.01CV$ (μA) 1.5mA (Whichever is smaller) 5 (at 20°C, after 5 minutes) | | | | | | | | |
| Dissipation factor (tg δ) (+20°C, 120Hz) | Rated voltage(V) | 10 | 16 | 25 | 35 | 50 | 63~100 | 160~250 | 315~450 |
| | tg δ | 0.80 | 0.60 | 0.50 | 0.40 | 0.30 | 0.20 | 0.15 | 0.18 |
| Temperature characteristics (Impedance ratio at 120Hz) | U_R (V) | 10 | 16~35 | 50~100 | 160~200 | 250~400 | 450 | | |
| | Z-25°C/+20°C | 5 | 4 | 3 | 3 | 4 | 4 | | |
| | Z-40°C/+20°C | 18 | 15 | 10 | 6 | 8 | | | |
| Load life | After applying rated voltage with specified ripple current for 5000 hours at +85°C and then resumed 16 hours: Capacitance change : ±20% Initial measured value Leakage current : ≤ Initial specified value Dissipation factor : ≤ 2 times Initial specified value | | | | | | | | |
| Shelf life | After storage for 1000 hours at +105°C, U_R to be applied for 30 minutes and then resumed 16 hours Capacitance change : ±20% Initial measured value Leakage current : ≤ Initial specified value Dissipation factor : ≤ 2 times Initial specified value | | | | | | | | |

■ Case size table

Unit: mm



Frequency coefficient

| U(V) \ (Hz) | 50 | 100(120) | 1K | 10K | 100K |
|-------------|-------|----------|------|------|------|
| ≤ 50 | 0.88 | 1.00 | 1.10 | 1.15 | 1.15 |
| 63~100 | 0.81 | 1.00 | 1.16 | 1.30 | 1.33 |
| ≥ 160 | 0.707 | 1.00 | 1.20 | 1.50 | 1.55 |

Temperature coefficient

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

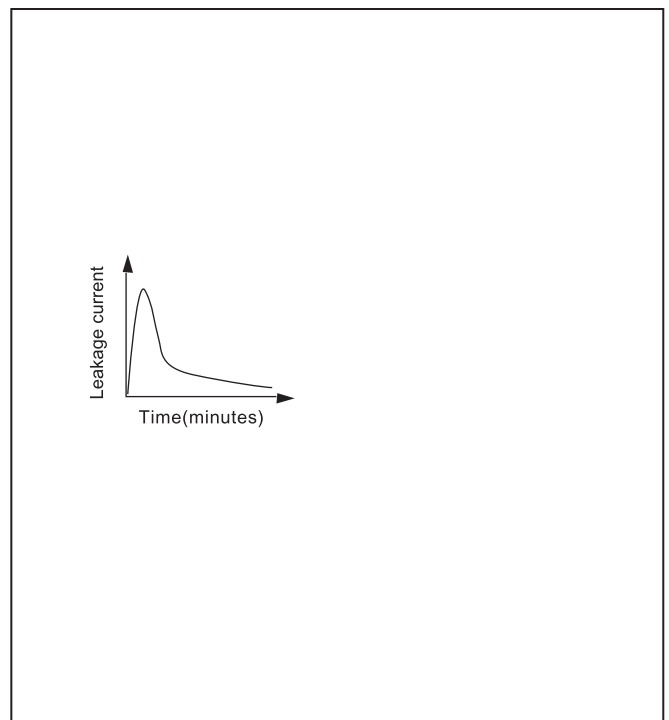
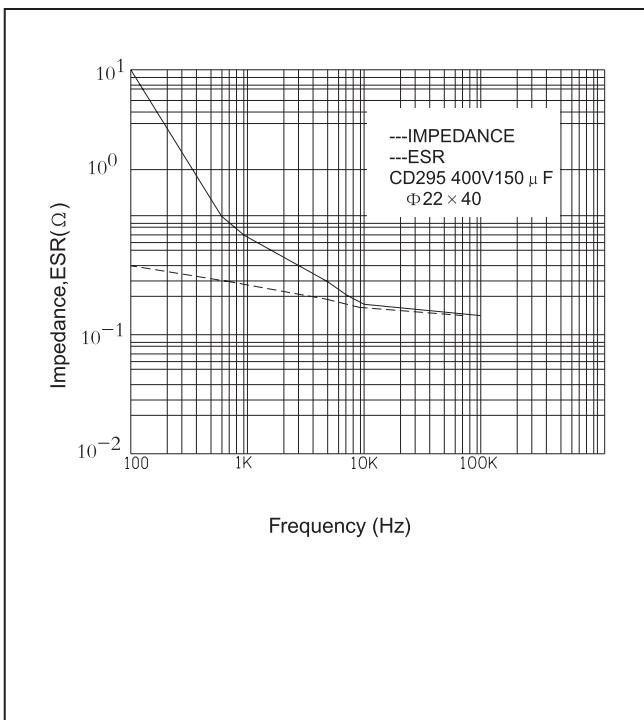
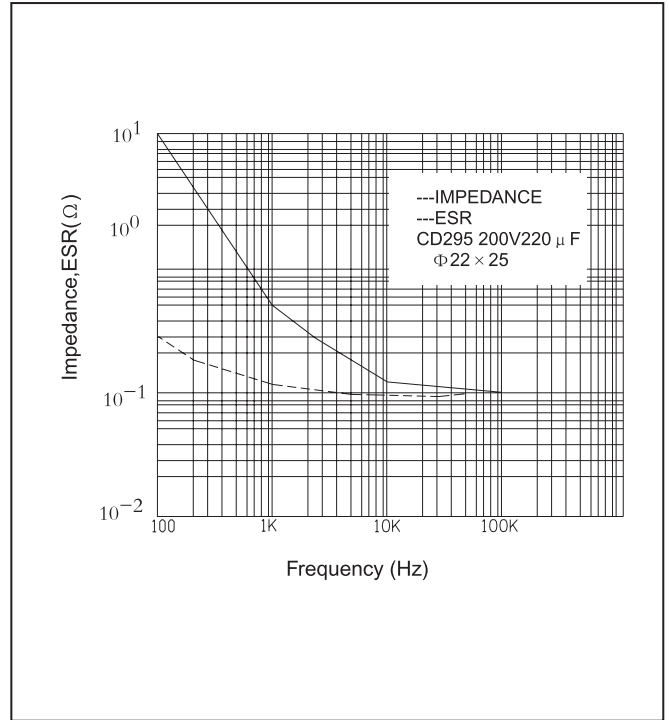
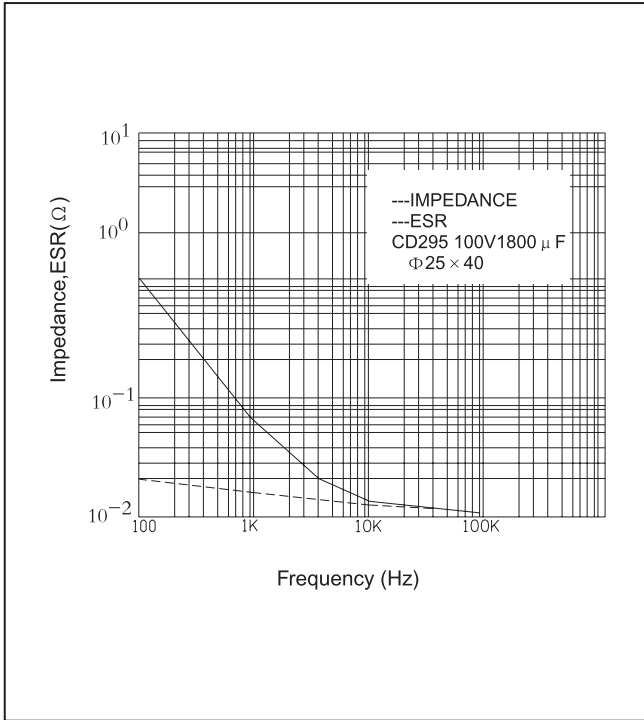
■ Dimensions

| $\Phi D \times L$ (mm) | 10 | | 16 | | 25 | | 35 | | 50 | | 63 | | 80 | | 100 | |
|---------------------------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|
| | Cap | Ripple | Cap | Ripple | Cap | Ripple | Cap | Ripple | Cap | Ripple | Cap | Ripple | Cap | Ripple | Cap | Ripple |
| | 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 | | | | | | | 10000 | 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 | 4.2 | 10000 | 3.2 | 6800 | 2.8 | 5600 | 3.2 | 3300 | 2.8 | 2200 | 2.3 |
| 30x40 | | | | | 22000 | 4.8 | 12000 | 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 |
| 35x30 | | | | | 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 |

| $\Phi D \times L$ (mm) | 160 | | 180 | | 200 | | 250 | | 315 | | 350 | | 400 | | 450 | |
|---------------------------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|
| | Cap | Ripple | Cap | Ripple | Cap | Ripple | Cap | Ripple | Cap | Ripple | Cap | Ripple | Cap | Ripple | Cap | Ripple |
| | μF | Arms | μF | Arms | μF | Arms | μF | Arms | μF | Arms | μF | Arms | μF | Arms | μF | Arms |
| 22x25 | 330 | 1.3 | 270 | 1.2 | 220 | 1.1 | 180 | 0.94 | 100 | 0.67 | 82 | 0.64 | 68 | 0.55 | | |
| 22x30 | 390 | 1.5 | 330 | 1.4 | 330 | 1.4 | 220 | 1.1 | 150 | 0.85 | 120 | 0.82 | 100 | 0.70 | 68 | 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 | 820 | 2.5 | 680 | 2.3 | 560 | 2.1 | 470 | 1.8 | 270 | 1.3 | 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 | 470 | 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 |

Rated ripple current(A,+85°C,120Hz)

■ Frequency characteristics curve



High-Power