

FEATURES

VERY LOW ESR @ HIGH FREQUENCY
HIGH RIPPLE CURRENT CAPABILITY
LOAD LIFE 2,000 HOURS
RoHs COMPLIANT

PART NUMBERING

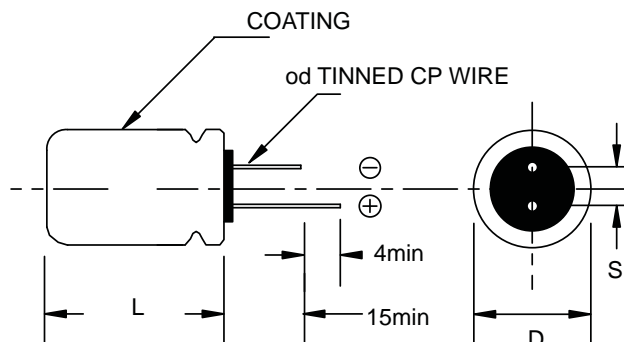
| Part Number Example: CPL-6R3/331M8X11F | | | | | | | |
|--|---|------------------|---|------------------------|----------------|------|----------------|
| CPL | - | 6R3 | / | 331 | M | 8X11 | F |
| Type | | Rated DC Voltage | | Capacitance Code (μF)* | Tolerance Code | Size | RoHs Compliant |
| * Capacitance Code: First two digits represent significant figures, third digit represents multiplier (number of zeros). | | | | | | | |

SPECIFICATIONS

| ITEM | CHARACTERISTICS | |
|---|---|--------------------------------|
| OPERATING TEMPERATURE RANGE | -55+105°C | |
| WORKING VOLTAGE RANGE | 2.5 ~ 16vdc | |
| CAPACITANCE RANGE | 180 ~ 3,500μF | |
| CAPACITANCE TOLERANCE | ±20% (120Hz 20°C) | |
| LEAKAGE CURRENT (+20°C) MAX | ≤0.2 CV + 100μA AFTER 2 MINUTES @ rated voltage | |
| DF (%) @ 120Hz 20°C | SEE TABLE | |
| ESR @ 100 ~ 300KHz | SEE TABLE | |
| ENDURANCE 105°C 2,000Hrs @ RATED VOLTAGE | CAPACITANCE CHANGE | WITHIN ±20% PRE-TEST VALUE |
| | LEAKAGE CURRENT | LESS THAN SPECIFIED VALUE |
| | DF | LESS THAN 150% SPECIFIED VALUE |
| MOISTURE RESISTANCE @ 60°C RH 90 ~ 95% 2,000Hrs | CAPACITANCE CHANGE | WITHIN ±20% PRE-TEST VALUE |
| | LEAKAGE CURRENT | LESS THAN SPECIFIED VALUE |
| | DF | LESS THAN 150% SPECIFIED VALUE |

FREQUENCY COEFFICIENT FOR RIPPLE CURRENT

| FREQUENCY | 120Hz | 1KHz | 10KHz | 100KHz |
|-------------|-------|------|-------|--------|
| COEFFICIENT | 0.05 | 0.3 | 0.7 | 1 |



| D X L | D+0.5 max | L MAX | S | d ± 0.5 |
|---------|-----------|-------|-----|---------|
| 8X8 | 8.0 | 8.5 | 3.5 | 0.6 |
| 8X11.5 | 8.0 | 12 | 3.5 | 0.6 |
| 10X12.5 | 10.0 | 13 | 5.0 | 0.6 |

| VOLTS (DC) | CAP. (µF) | LEAKAGE (µA) | DF (%) | ESR (mΩ) | MAX RIPPLE (Ar.m.s.) | SIZE DXL(mm) | |
|------------|-----------|--------------|--------|----------|----------------------|--------------|---------|
| 2.5 | 560 | 280 | 8 | 7 | 5.0 | 8X8 | |
| | | | | | | 8X11.5 | |
| | 680 | 340 | 8 | 7 | 5.6 | 8X8 | |
| | | | | | | 8X11.5 | |
| | 820 | 410 | 8 | 7 | 5.6 | 8X8 | |
| | | | | | | 8X11.5 | |
| | | | | | | | |
| | | 1,500 | 750 | 8 | 7 | 5.6 | 8X11.5 |
| | | 2,500 | 1,250 | 8 | 7 | 6.1 | 10X12.5 |
| | | | | | | | |
| | 3,500 | 1,250 | 8 | 7 | 6.1 | 10X12.5 | |
| 4.0 | 560 | 224 | 8 | 7 | 5.6 | 8X8 | |
| | | | | | | 8X11.5 | |
| | 680 | 328 | 8 | 7 | 5.6 | 8X8 | |
| | | | | | | 8X11.5 | |
| | 820 | | | | | | |
| | 1000 | 960 | 8 | 7 | 5.6 | 8X11.5 | |
| | 1200 | | | | | | |
| 1,500 | 1,200 | 8 | 7 | 6.1 | 10X12.5 | | |
| 2,500 | 1,500 | 8 | 7 | 6.1 | 10X12.5 | | |
| 6.3 | 150 | 189 | 7 | 7 | 5.6 | 8X11.5 | |
| | 220 | 277 | 7 | 7 | 5.6 | 8X11.5 | |
| | 330 | 416 | 7 | 7 | 5.1 | 8X8 | |
| | | | | | 5.6 | 8X11.5 | |
| | 390 | 245.7 | 8 | 7 | 5.6 | 8X11.5 | |
| | 470 | 592 | 8 | 7 | 5.6 | 8X11.5 | |
| | 680 | 428 | 8 | 7 | 6.1 | 10X12.5 | |
| | 820 | 516.6 | 10 | 7 | 6.1 | 10X12.5 | |
| | 1,000 | 630 | 10 | 7 | 6.1 | 10X12.5 | |
| | 2,000 | 1,260 | 10 | 7 | 6.1 | 10X12.5 | |
| | 100 | 100 | 7 | 8 | 5.6 | 8X11.5 | |
| | 220 | 440 | 7 | 8 | 5.6 | 8X11.5 | |
| | 470 | 470 | 8 | 8 | 6.1 | 10X12.5 | |
| | 560 | 560 | 10 | 8 | 6.1 | 10X12.5 | |
| | 680 | 680 | 10 | 8 | 6.1 | 10X12.5 | |
| | 820 | 820 | 10 | 8 | 6.1 | 10X12.5 | |
| | 1,000 | 1,000 | 10 | 8 | 6.1 | 10X12.5 | |
| | 68 | 108 | 8 | 8 | 5.6 | 8X11.5 | |
| | 100 | 160 | 8 | 8 | 5.6 | 8X11.5 | |
| | 180 | 288 | 8 | 8 | 5.6 | 8X11.5 | |
| | 330 | 528 | 8 | 8 | 5.6 | 8X11.5 | |
| | | | | | 6.1 | 10X12.5 | |
| | | 752 | 10 | 8 | 8 | 6.1 | 10X12.5 |
| 6.1 | | | | | | 10X12.5 | |
| 680 | 1,000 | 10 | 8 | 6.1 | 10X12.5 | | |
| 820 | 1,280 | 10 | 8 | 6.1 | 10X12.5 | | |

RIPPLE CURRENT @ 105°C 100KHZ

2011/04

| VOLTS (DC) | CAP. (μF) | LEAKAGE (μA) | DF (%) | ESR (mΩ) | MAX RIPPLE (Ar.m.s.) | SIZE DXL(mm) |
|------------|-----------|--------------|--------|----------|----------------------|--------------|
| 10 | 180 | 180 | 7 | 7 | 5.6 | 8x11.5 |
| | 220 | 220 | 8 | 7 | 5.6 | 8x11.5 |
| | 270 | 270 | 8 | 7 | 5.6 | 8x11.5 |
| | 330 | 330 | 8 | 7 | 5.6 | 8x11.5 |
| | 390 | 390 | 8 | 7 | 5.6 | 8x11.5 |
| | 470 | 470 | 8 | 7 | 6.1 | 8x8 |
| | | | | | 5.6 | 8x11.5 |
| | 560 | 560 | 10 | 7 | 5.6 | 8x11.5 |
| | 680 | 680 | 10 | 7 | 6.1 | 10x12.5 |
| | 820 | 820 | 10 | 7 | 6.1 | 10x12.5 |
| 1000 | 1000 | 10 | 7 | 6.1 | 10x12.5 | |
| 16 | 180 | 288 | 8 | 7 | 5.6 | 8x11.5 |
| | 220 | 352 | 8 | 7 | 5.6 | 8x11.5 |
| | 270 | 432 | 8 | 7 | 5.6 | 8x11.5 |
| | 330 | 528 | 8 | 7 | 5.6 | 8x11.5 |
| | | | | | 6.1 | 10x12.5 |
| | 390 | 624 | 8 | 7 | 6.1 | 10x12.5 |
| | 470 | 752 | 10 | 7 | 5.6 | 8x11.5 |
| | | | | | 6.1 | 10x12.5 |
| | 560 | 896 | 10 | 7 | 6.1 | 10x12.5 |
| | 680 | 1000 | 10 | 7 | 6.1 | 10x12.5 |
| 820 | 1280 | 10 | 7 | 6.1 | 10x12.5 | |

RIPPLE CURRENT @ 105°C 100KHZ