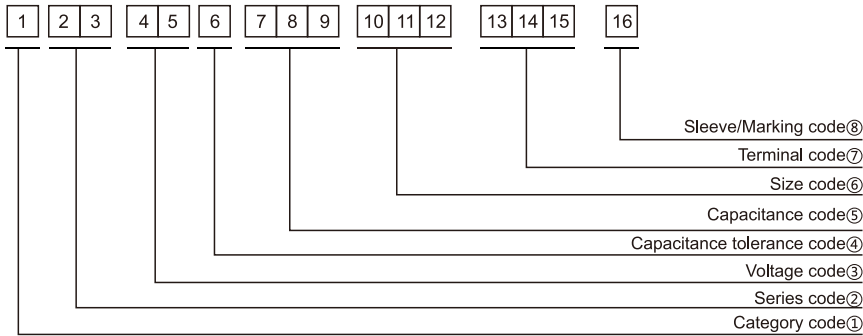


Part Numbering System



① Category code

| Type | Code |
|------------------------|------|
| | 1 |
| Electrolytic Capacitor | E |
| Conductive Polymer | S |

② Series code

| Series name | Code | |
|-------------|------|---|
| | 2 | 3 |
| WH | W | H |
| CD11GE | G | E |
| CD11GES | G | X |
| CD11GAS | G | W |
| CD11GHS | G | S |
| NR | N | R |
| PZ | P | Z |

③ Voltage code

| WV (V _{dc}) | Code | |
|-----------------------|------|---|
| | 4 | 5 |
| 2.5 | 0 | E |
| 3 | 0 | D |
| 4 | 0 | G |
| 6.3 | 0 | J |
| 6.8 | 0 | C |
| 7 | 0 | Q |
| 7.5 | 0 | A |
| 10 | 1 | A |
| 12 | 1 | T |
| 16 | 1 | C |
| 25 | 1 | E |
| 35 | 1 | V |
| 40 | 1 | G |
| 50 | 1 | H |
| 63 | 1 | J |
| 80 | 1 | B |
| 100 | 1 | K |
| 120 | 2 | B |
| 160 | 2 | C |
| 180 | 2 | L |
| 200 | 2 | D |
| 220 | 2 | N |
| 250 | 2 | E |
| 315 | 2 | F |
| 350 | 2 | V |
| 380 | 2 | P |
| 400 | 2 | G |
| 420 | 2 | T |
| 450 | 2 | W |
| 500 | 2 | H |
| 550 | 2 | J |
| 600 | 2 | K |

④ Capacitance tolerance code

| Tol. (%) | Code |
|----------|------|
| | 6 |
| -10~+10 | K |
| -20~+20 | M |
| -10~+30 | Q |
| -10~+20 | V |
| 0~+20 | A |
| -5~+20 | C |
| -10~-20 | B |
| -5~+5 | D |
| 0~+10 | E |
| -5~-20 | F |
| -15~+5 | N |

⑤ Capacitance code

| Cap (μF) | Code | | |
|----------|------|---|---|
| | 7 | 8 | 9 |
| 0.10 | R | 1 | 0 |
| 0.22 | R | 2 | 2 |
| 0.33 | R | 3 | 3 |
| 0.47 | R | 4 | 7 |
| 0.68 | R | 6 | 8 |
| 1 | 0 | 1 | 0 |
| 2.2 | 2 | R | 2 |
| 3.3 | 3 | R | 3 |
| 4.7 | 4 | R | 7 |
| 6.8 | 6 | R | 8 |
| 10 | 1 | 0 | 0 |
| 22 | 2 | 2 | 0 |
| 33 | 3 | 3 | 0 |
| 47 | 4 | 7 | 0 |
| 68 | 6 | 8 | 0 |
| 100 | 1 | 0 | 1 |
| 220 | 2 | 2 | 1 |
| 330 | 3 | 3 | 1 |
| 470 | 4 | 7 | 1 |
| 680 | 6 | 8 | 1 |
| 1000 | 1 | 0 | 2 |
| 2200 | 2 | 2 | 2 |
| 3300 | 3 | 3 | 2 |
| 4700 | 4 | 7 | 2 |
| 6800 | 6 | 8 | 2 |
| 10000 | 1 | 0 | 3 |
| 22000 | 2 | 2 | 3 |
| 33000 | 3 | 3 | 3 |
| 68000 | 6 | 8 | 3 |

⑥ Size code

| ΦD (mm) | Code |
|---------|------|
| | 10 |
| 4 | C |
| 5 | D |
| 6.3 | E |
| 8 | F |
| 10 | G |
| 11 | H |
| 12 | J |
| 12.5 | W |
| 13 | K |
| 14 | X |
| 16 | L |
| 18 | M |
| 19 | Z |
| 20 | N |
| 22 | O |
| 25 | P |
| 30 | Q |
| 35 | R |
| 40 | Y |
| 51.6 | S |
| 64.3 | T |
| 76.9 | U |
| 91 | V |
| 100 | A |

| L (mm) | Code | |
|--------|------|----|
| | 11 | 12 |
| 5 | 0 | 5 |
| 7 | 0 | 7 |
| 11 | 1 | 1 |
| 12 | 1 | 2 |
| 16 | 1 | 6 |
| 20 | 2 | 0 |
| 25 | 2 | 5 |
| 30 | 3 | 0 |
| 35 | 3 | 5 |
| 40 | 4 | 0 |
| 46 | 4 | 6 |
| 50 | 5 | 0 |
| 60 | 6 | 0 |
| 80 | 8 | 0 |
| 100 | A | 0 |
| 115 | B | 5 |
| 120 | C | 0 |
| 130 | D | 0 |
| 140 | E | 0 |
| 160 | G | 0 |
| 200 | K | 0 |
| 220 | M | 0 |
| 236 | N | 6 |
| 250 | P | 0 |

⑦ Terminal code

| Specification | Code | Size | |
|---------------------------------------|------|------|----|
| | 13 | 14 | 15 |
| Bulk packing | O | - | - |
| Taping (SMD Type) | D | 0 | 0 |
| Φ4~8 Taping F=5.0mm | P | 5 | 0 |
| Φ10~12.5 Taping F=5.0mm | B | 5 | 0 |
| Lead Cut L=3.5mm | C | 3 | 5 |
| Lead Cut L=11.0mm | C | B | 0 |
| Lead Forming & Cut L=4.5mm | F | - | - |
| Kink & Cut L=4.5mm | J | - | - |
| Snap-in type Terminal 4.0mm in length | K | - | - |
| Three Terminals | T | - | - |
| Ring clip mounting standard design | A | 0 | 0 |
| Ring clip mounting special design | S | - | - |

⑧ Sleeve/Marking code

| Sleeve/Marking | Code |
|----------------|------|
| | 16 |
| PVC | C |
| PET | T |
| Dark blue | B |
| Bright red | R |
| Sky-blue | S |
| Light blue | T |
| Pink | Z |
| Black | H |
| Purple-blue | V |
| Red | O |

Lead Forming
Taping Specifications

Fig.1 code: X



Fig.2 code: B



Fig.3 code: B

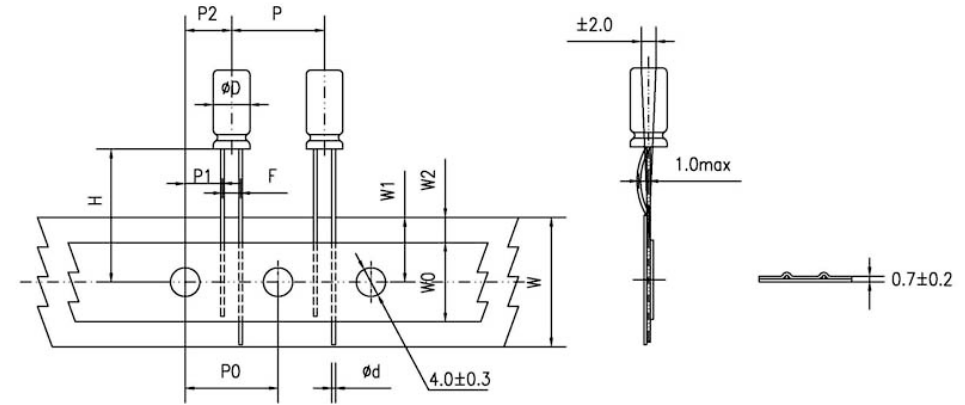


Fig.4 code: P



Lead Forming

Specification Fig.1 & Fig.2 & Fig.3

| Items | Symbol | Case size | | | | | | | | | | Tolerance | | |
|---|--------|------------|-----|------------|------|------|------|-------|----------------|------------------|-----------------------------------|-----------|--------------|--|
| | | 4*5 4*7 | | 5*5 5*7 | | 5*11 | | 6.3*5 | 6.3*7 6.3*9 | 6.3*11 6.3*12 | 8*5/7 8*9/11 8*11.5 8*12 | | 8*16 8*20 | 10*9/12 10*12.5 10*13/16 10*20/25 |
| Pin Code | | X | B | X | B | X | B | B | B | B | B | B | B | |
| Lead wire diameter | Φd | 0.45 | | 0.45 | | 0.5 | | 0.45 | 0.5 | 0.5 | 0.45/0.5 | 0.6 | 0.6 | ±0.05 |
| Pitch of body | P | 12.7 | | 12.7 | | 12.7 | | 12.7 | 12.7 | 12.7 | 12.7 | 12.7 | 12.7 | ±1.0 |
| Feed hole pitch | P0 | 12.7 | | 12.7 | | 12.7 | | 12.7 | 12.7 | 12.7 | 12.7 | 12.7 | 12.7 | ±0.2 |
| Distance from hole center to lead | P1 | 5.1 | 5.6 | 5.1 | 5.35 | 5.1 | 5.35 | 5.1 | 5.1 | 5.1 | 4.6 | 4.6 | 3.85 | ±0.7 |
| Distance from feed hole center to body center | P2 | 6.35 | | 6.35 | | 6.35 | | 6.35 | 6.35 | 6.35 | 6.35 | 6.35 | 6.35 | ±1.0 |
| Lead-to-lead distance | F | 2.5 | 1.5 | 2.5 | 2.0 | 2.5 | 2.0 | 2.5 | 2.5 | 2.5 | 3.5 | 3.5 | 5.0 | ±0.5 |
| Height of body from tape center | H | 18.5 | | 18.5 | | 18.5 | | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | ±0.75 |
| Base tape width | W | 18.0 | | 18.0 | | 18.0 | | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | ±0.5 |
| Adhesive tape width | W0 | 6.0 | | 6.0 | | 6.0 | | 6.0 | 6.0 | 8.0 | 8.0 | 8.0 | 11.0 | min |
| Hole position | W1 | 9.0 | | 9.0 | | 9.0 | | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | +0.75 -0.5 |
| Hole down tape position | W2 | 3.0 | | 3.0 | | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | max |

Specification Fig.4

| Items | Symbol | Case size | | | | | | | | | Tolerance |
|---|--------|------------|------|------|------|-------|----------------|------------------|------------------------------|--------------|---------------|
| | | 4*5 4*7 | 5*5 | 5*7 | 5*11 | 6.3*5 | 6.3*7 6.3*9 | 6.3*11 6.3*12 | 8*5/7 8*9/11 8*11.5/12 | 8*16 8*20 | |
| Pin Code | | P | P | P | P | P | P | P | P | P | |
| Lead wire diameter | Φd | 0.45 | 0.45 | 0.45 | 0.5 | 0.45 | 0.5 | 0.5 | 0.45/0.5 | 0.6 | ±0.05 |
| Pitch of body | P | 12.7 | 12.7 | 12.7 | 12.7 | 12.7 | 12.7 | 12.7 | 12.7 | 12.7 | ±1.0 |
| Feed hole pitch | P0 | 12.7 | 12.7 | 12.7 | 12.7 | 12.7 | 12.7 | 12.7 | 12.7 | 12.7 | ±0.2 |
| Distance from hole center to lead | P1 | 3.85 | 3.85 | 3.85 | 3.85 | 3.85 | 3.85 | 3.85 | 3.85 | 3.85 | ±0.7 |
| Distance from feed hole center to body center | P2 | 6.35 | 6.35 | 6.35 | 6.35 | 6.35 | 6.35 | 6.35 | 6.35 | 6.35 | ±1.0 |
| Lead-to-lead distance | F | 1.5 | 2.0 | 2.0 | 2.0 | 2.5 | 2.5 | 2.5 | 3.5 | 3.5 | ±0.5 |
| Lead to lead distance | F1 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | +0.8 -0.2 |
| Height of body from tape center | H | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | ±0.75 |
| Lead wire clinch height | H0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | ±0.5 |
| Base tape width | W | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | ±0.5 |
| Adhesive tape width | W0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 8.0 | 8.0 | 8.0 | min |
| Hole position | W1 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | +0.75 -0.5 |
| Hole down tape position | W2 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | max |

Lead Forming

Lead Forming & Cut

Code:C
RANGE: $\Phi 4\sim\Phi 18$



Code:F
RANGE: $\Phi 4\sim\Phi 8$



| ΦD | F | L | ΦD | F | L |
|----------|-----|----------|----------|-----|--------------------|
| 4 | 1.5 | 3.0~12.0 | 4 | 5.0 | 3.5, 4.5, 5.0, 7.0 |
| 5 | 2.0 | 3.0~12.0 | 5 | 5.0 | 3.5, 4.5, 5.0, 7.0 |
| 6.3 | 2.5 | 3.0~12.0 | 6.3 | 5.0 | 3.5, 4.5, 5.0, 7.0 |
| 8 | 3.5 | 3.0~12.0 | 8 | 5.0 | 3.5, 4.5, 5.0, 7.0 |
| 10 | 5.0 | 3.0~12.0 | - | - | - |
| 12.5 | 5.0 | 3.0~12.0 | - | - | - |
| 16 | 7.5 | 3.0~12.0 | - | - | - |
| 18 | 7.5 | 3.0~12.0 | - | - | - |

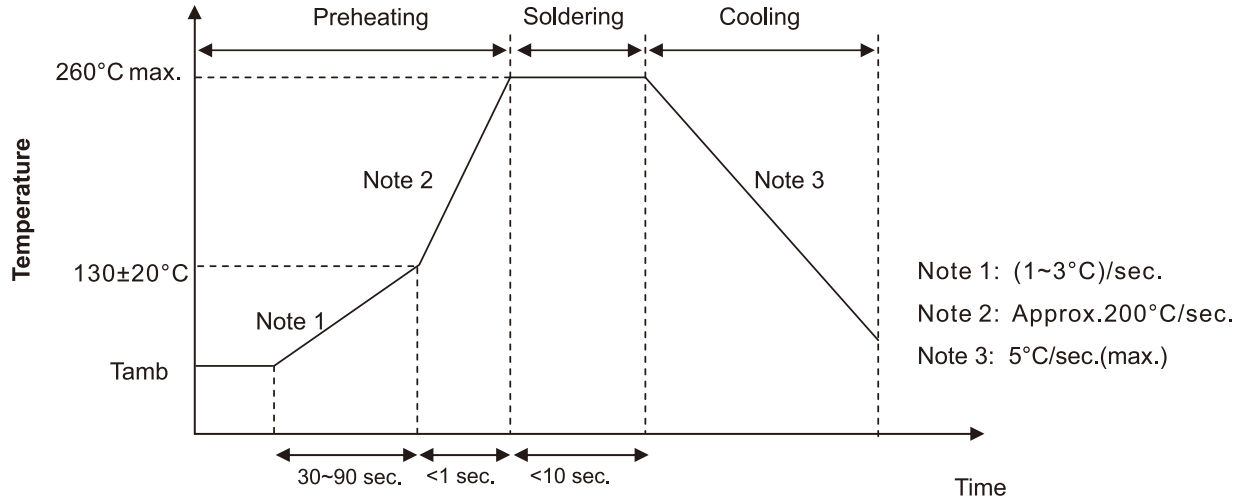
Code:J
RANGE: $\Phi 10\sim\Phi 18$



| ΦD | F | L |
|----------|-----|---------------|
| 10 | 5.0 | 4.0, 4.5, 5.0 |
| 12.5 | 5.0 | 4.0, 4.5, 5.0 |
| 16 | 7.5 | 4.0, 4.5, 5.0 |
| 18 | 7.5 | 4.0, 4.5, 5.0 |

Solering Recommendation

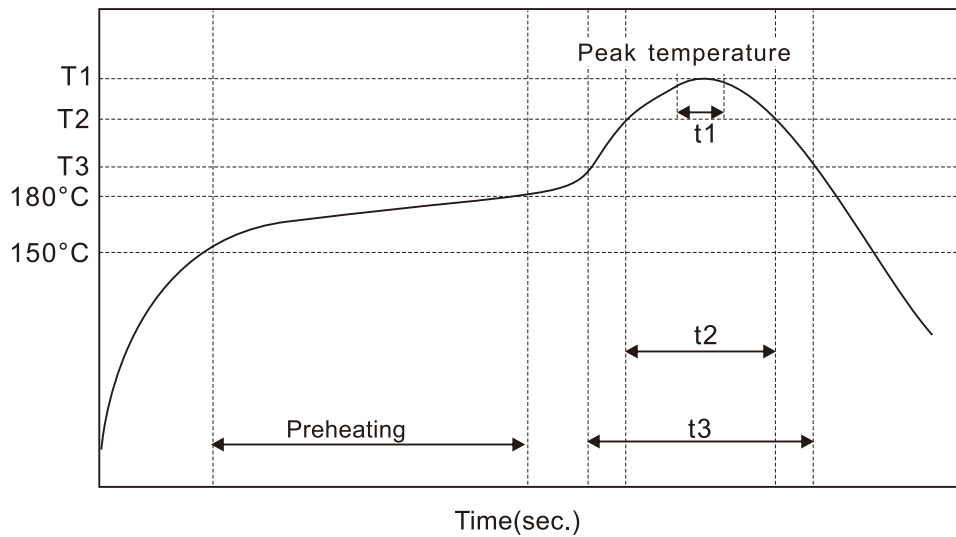
■ Flow Soldering(Radial Lead Type)



■ Reflow Soldering

- (For Polymer SMD Type)

Recommended Reflow Profile

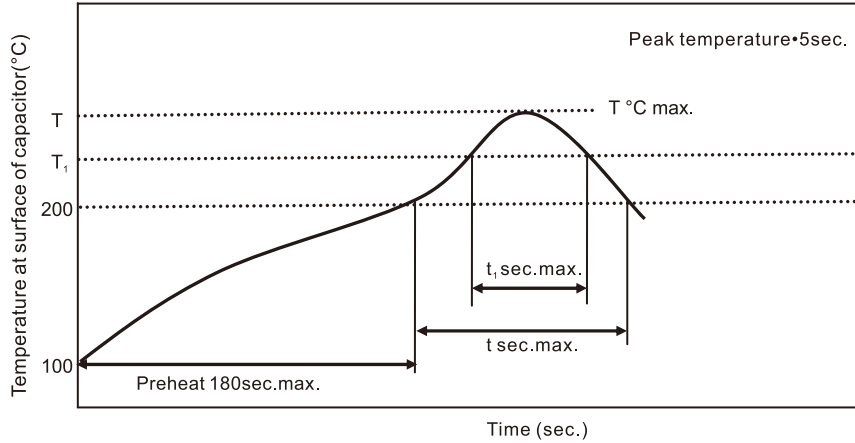


| Item | Preheating | T1(°C) | T2(°C) | T3(°C) | t1(sec.) | t2(sec.) | t3(sec.) | Reflow cycle |
|-------------|---------------------------------|--------|--------|--------|----------|----------|----------|--------------|
| Condition 1 | 150°C to 180°C Within 90sec. | ≤260 | 230 | 200 | ≤10 | ≤40 | ≤60 | 1 |
| Condition 2 | | ≤250 | 230 | 200 | ≤10 | ≤40 | ≤60 | 2 |

● (For Liquid SMD Type)

Case size: $\Phi 6.3$ – $\Phi 10$ mm:

- Temperature at surface of capacitor shall not exceed $T^{\circ}\text{C}$.
- The duration for over 200°C temperature and $T_1^{\circ}\text{C}$ at surface of capacitor shall not exceed t and t_1 seconds, respectively.
- Preheat shall be done at 100°C to 200°C and for Maximum 180 seconds.

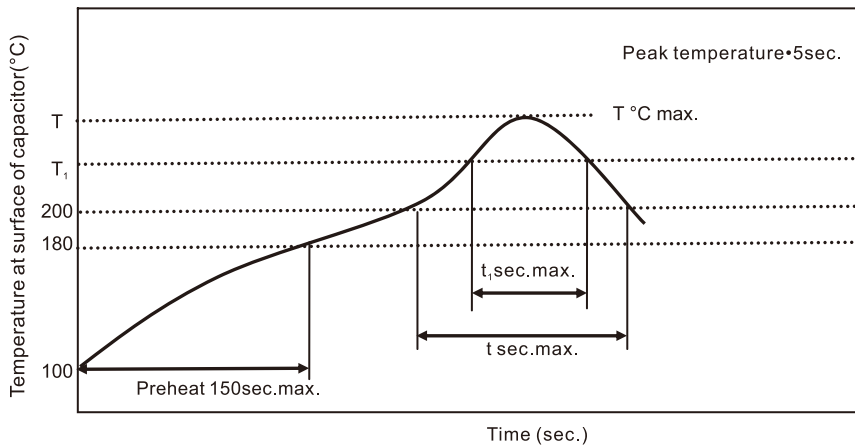


| Case size (mm) | $T(^{\circ}\text{C})$ ① | $T_1(^{\circ}\text{C})$ | $t(\text{sec.})$ ② | $t_1(\text{sec.})$ ③ | Reflow cycle |
|----------------|-------------------------|-------------------------|--------------------|----------------------|--------------|
| $\Phi 6.3$ | 250 | 230 | 90 | 40 | 1 |
| $\Phi 8$ | 240 | 230 | 90 | 30 | 1 |
| $\Phi 10$ | 235 | 230 | 60 | 30 | 1 |

- ① Peak temperature
- ② The duration over 200°C (max.)
- ③ The duration over $T_1^{\circ}\text{C}$
- Please contact us if capacitors are subject to the conditions other than the allowable range of reflow.

Case size: $\Phi 12.5$ – $\Phi 18$ mm:

- Temperature at surface of capacitor shall not exceed $T^{\circ}\text{C}$.
- The duration for over 200°C temperature and $T_1^{\circ}\text{C}$ at surface of capacitor shall not exceed t and t_1 seconds, respectively.
- Preheat shall be done at 100°C to 180°C and for Maximum 150 seconds.



| Case size (mm) | $T(^{\circ}\text{C})$ ① | $T_1(^{\circ}\text{C})$ | $t(\text{sec.})$ ② | $t_1(\text{sec.})$ ③ | Reflow cycle |
|-------------------------|-------------------------|-------------------------|--------------------|----------------------|--------------|
| $\Phi 12.5$ – $\Phi 18$ | 240 | 230 | 60 | 30 | 1 |

- ① Peak temperature
- ② The duration over 200°C (max.)
- ③ The duration over $T_1^{\circ}\text{C}$
- Please contact us if capacitors are subject to the conditions other than the allowable range of reflow.

PT series

- Endurance: +125°C 2,000 hours
- Long Life, High Temperature Resistance
- Recommended Applications: Lamps Power, LED Power, Service Equipment
- RoHS Compliant and lead-free



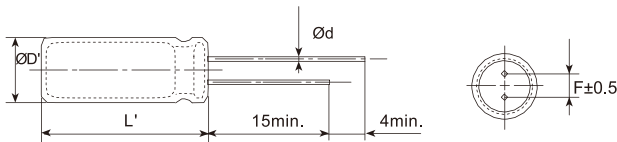
Conductive Polymer Radial Type

SPECIFICATIONS

| Items | Characteristics | | | | | | | | |
|--|---|--|---------------------------------------|-----|------|----|----|------------------|--|
| Category Temperature Range | -55~+125°C | | | | | | | | |
| Rated Working Voltage Range | 6.3~25 V _{dc} | | | | | | | | |
| Nominal Capacitance Range | 22~5600μF | | | | | | | | |
| Capacitance Tolerance | ±20%(M) (at 20°C, 120Hz) | | | | | | | | |
| DC Leakage Current | I ≤ 0.2CV or 500μA, whichever is greater. Where, I: Max. leakage current (μA), C: Nominal capacitance (μF), V: Rated voltage (V) (at 20°C after 2 minutes) | | | | | | | | |
| Dissipation Factor (tanδ) | Rated Voltage(V _{dc}) | 6.3 | 6.8 | 7.5 | 10 | 16 | 25 | (at 20°C, 120Hz) | |
| | tanδ (max.) | 0.08 | | | 0.12 | | | | |
| ESR(100k~300kHz, 20°C) | Value in characteristics table | | | | | | | | |
| Temperature Characteristic (Impedance Ratio at 100kHz) | Z(+125°C)/Z(+20°C) ≤ 1.25 Z(-55°C)/Z(+20°C) ≤ 1.25 | | | | | | | | |
| Endurance | After applying rated voltage for 2,000 hours at 125°C, the capacitors shall meet the following requirements. | | | | | | | | |
| | Appearance | No significant damage | | | | | | | |
| | Capacitance Change | ≤ ±20% of the initial value | | | | | | | |
| | D.F. (tanδ) | ≤ 200% of the initial specified value | | | | | | | |
| | ESR | ≤ 200% of the initial specified value | | | | | | | |
| Humidity Test | After subjecting to 90~95% RH for 2,000 hours at 60°C without voltage applied, the capacitors shall meet the requirement as surge test. | | | | | | | | |
| | Surge Test | After subjecting to 1,000 cycles each consisting of charge with the surge voltage specified at normal temperature for 30 seconds through a protective resistor and discharge for 5 minutes 30 seconds, the capacitors shall meet the following requirements. | | | | | | | |
| | | Appearance | No significant damage | | | | | | |
| | | Capacitance Change | ≤ ±20% of the initial value | | | | | | |
| | | D.F. (tanδ) | ≤ 150% of the initial specified value | | | | | | |
| ESR | | ≤ 150% of the initial specified value | | | | | | | |
| Surge Test | Leakage Current | | | | | | | | |
| | ≤ The initial specified value | | | | | | | | |

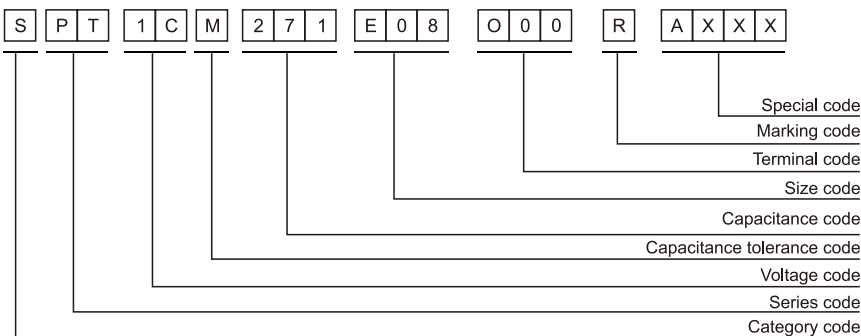
*Note: If any doubt arises, measure the leakage current after the following voltage treatment.
Voltage treatment: DC rated voltage is applied to the capacitors for 120 minutes at 105°C.

DIMENSIONS [mm]



| ØD | 5 | 5.5 | 6.3 | 6.8 | 8 | 10 | 13 |
|-----|------------|-----|-----|-----|----------|-----|----------|
| Ød | 0.5 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 |
| F | 2.0 | 2.5 | 2.5 | 2.5 | 3.5 | 5.0 | 5.0 |
| ØD' | ØD+0.5max. | | | | | | |
| L' | L+1.0max. | | | | L-0.5~+1 | | L-0.5~+2 |

PART NUMBERING SYSTEM



PT series

■ STANDARD RATINGS

| VDC (SV) | Cap (μF) | Size ΦDxL(mm) | ESR (mΩ,20°C,100kHz)(max.) | Rated ripple current (mA _{rms} /125°C,100kHz) | Leakage Current (μA)(max.) |
|--------------|----------|---------------|----------------------------|--|----------------------------|
| 6.3 (7.2) | 100 | 4*7 | 42 | 900 | 500 |
| | 150 | 4*7 | 42 | 1260 | 500 |
| | 180 | 5*7 | 42 | 1560 | 500 |
| | 220 | 5*7 | 28 | 2100 | 500 |
| | | 6.3*7 | 28 | 2130 | 500 |
| | | 6.3*8 | 21 | 2160 | 500 |
| | 270 | 5*7 | 28 | 2280 | 500 |
| | 330 | 5*8 | 28 | 2400 | 500 |
| | | 6.3*5 | 35 | 1896 | 500 |
| | | 6.3*8 | 21 | 2400 | 500 |
| | 390 | 5*9 | 28 | 2460 | 500 |
| | 470 | 5*10 | 28 | 2580 | 592 |
| | | 5.5*9 | 28 | 2460 | 592 |
| | | 6.3*7 | 28 | 2340 | 592 |
| | | 6.3*8 | 21 | 2640 | 592 |
| | 560 | 6.3*7 | 28 | 2520 | 706 |
| | | 6.3*8 | 28 | 2880 | 706 |
| | | 5.5*9 | 28 | 2580 | 706 |
| | 680 | 6.3*9 | 28 | 3048 | 857 |
| | | 5.5*9 | 28 | 2880 | 857 |
| | | 8*9 | 28 | 2760 | 857 |
| | 820 | 6.3*9 | 28 | 3000 | 1033 |
| | | 6.3*10 | 18 | 3100 | 1033 |
| | | 8*9 | 21 | 2820 | 1033 |
| | 1000 | 6.3*10 | 14 | 3090 | 1260 |
| | | 8*9 | 17 | 2880 | 1260 |
| 8*11 | | 12 | 3120 | 1260 | |
| 6.3*11 | | 14 | 3120 | 1512 | |
| 1200 | 8*11 | 14 | 3180 | 1512 | |
| | 8*11 | 14 | 3240 | 1890 | |
| 1500 | 10*12 | 14 | 3300 | 1890 | |
| 1800 | 10*10 | 14 | 3336 | 2268 | |
| 2200 | 8*14 | 14 | 3420 | 2772 | |
| 6.8 (7.8) | 10*12 | 14 | 3480 | 2772 | |
| | 3300 | 10*14 | 14 | 3540 | 4158 |
| | 4700 | 10*17 | 14 | 3660 | 5000 |
| | 5600 | 10*18 | 14 | 3780 | 5000 |
| | 220 | 5*7 | 28 | 1980 | 500 |
| 270 | 5*7 | 28 | 2160 | 500 | |
| 330 | 5*8 | 28 | 2280 | 500 | |
| | 6.3*5 | 35 | 1860 | 500 | |
| | 5*9 | 28 | 2460 | 639 | |
| 470 | 6.3*7 | 28 | 2220 | 639 | |
| 560 | 6.3*8 | 28 | 2700 | 762 | |
| 680 | 6.3*9 | 28 | 2880 | 925 | |
| 820 | 6.3*9 | 28 | 2940 | 1115 | |
| 1000 | 6.3*11 | 17 | 3060 | 1360 | |
| | 8*11 | 14 | 3090 | 1360 | |
| | 150 | 5*6 | 42 | 900 | 500 |
| 7 (8) | 220 | 5*7 | 28 | 1920 | 500 |
| | 270 | 5*8 | 28 | 2040 | 500 |
| | 330 | 5*9 | 28 | 2160 | 500 |
| | 470 | 6.3*8 | 28 | 2280 | 658 |
| | | 5.5*9 | 28 | 2160 | 658 |
| | 560 | 6.3*8 | 28 | 2400 | 784 |
| | 680 | 6.3*9 | 17 | 2520 | 952 |
| | 820 | 6.3*10 | 17 | 2700 | 1148 |
| | | 8*9 | 17 | 2760 | 1148 |
| 7.5 (8.6) | 220 | 5*7 | 28 | 1860 | 500 |
| | 270 | 5*8 | 28 | 1980 | 500 |
| | 330 | 5*9 | 28 | 2100 | 500 |
| | 390 | 5*9 | 28 | 2100 | 585 |
| | 470 | 6.3*7 | 35 | 1920 | 705 |
| | | 5.5*9 | 28 | 2130 | 705 |
| | 500 | 5.5*9 | 28 | 2160 | 750 |
| | 560 | 6.3*8 | 28 | 2340 | 840 |
| | 680 | 6.3*9 | 17 | 2460 | 1020 |
| | | 6.8*8 | 28 | 2400 | 1020 |
| | 820 | 6.3*10 | 17 | 2640 | 1230 |
| | | 8*9 | 17 | 2730 | 1230 |
| 1200 | 8*11 | 17 | 2880 | 1800 | |
| 10 (11.5) | 47 | 5*7 | 49 | 1320 | 500 |
| | 56 | 5*7 | 49 | 1350 | 500 |
| | 68 | 5*7 | 49 | 1380 | 500 |
| | 82 | 5*7 | 49 | 1410 | 500 |
| | 100 | 5*7 | 49 | 1440 | 500 |

PT series

■ STANDARD RATINGS

| VDC (SV) | Cap (μF) | Size ΦDxL(mm) | ESR (mΩ,20°C,100kHz)(max.) | Rated ripple current (mArms/125°C,100kHz) | Leakage Current (μA)(max.) |
|-----------|----------|---------------|----------------------------|---|----------------------------|
| 10 (11.5) | 120 | 5*7 | 28 | 1470 | 500 |
| | 150 | 5*7 | 28 | 1500 | 500 |
| | 180 | 5*8 | 28 | 1620 | 500 |
| | 220 | 5*9 | 28 | 1692 | 500 |
| | | 6.3*8 | 21 | 1896 | 500 |
| | 270 | 6.3*8 | 28 | 1860 | 540 |
| | 330 | 6.3*8 | 28 | 1980 | 660 |
| | | 8*9 | 21 | 2040 | 660 |
| | 390 | 6.3*10 | 17 | 2100 | 660 |
| | | 6.3*8 | 28 | 2040 | 780 |
| | 470 | 5.5*9 | 28 | 2040 | 940 |
| | | 6.3*8 | 28 | 2100 | 940 |
| | | 8*9 | 21 | 2130 | 940 |
| | 560 | 8*11 | 17 | 3390 | 940 |
| | | 6.3*10 | 18 | 2160 | 1120 |
| | | 8*9 | 21 | 2160 | 1120 |
| | 680 | 6.3*11 | 21 | 2280 | 1360 |
| | | 8*11 | 17 | 2340 | 1360 |
| | 820 | 8*11 | 17 | 2400 | 1640 |
| | 1000 | 8*11 | 17 | 2520 | 2000 |
| 10*12 | | 14 | 3180 | 2000 | |
| 1200 | 8*12 | 14 | 2700 | 2400 | |
| | 10*12 | 14 | 3270 | 2400 | |
| 1500 | 10*12 | 14 | 3300 | 3000 | |
| 1800 | 10*13 | 14 | 3480 | 3600 | |
| 2200 | 10*15 | 14 | 3660 | 4400 | |
| 3300 | 10*18 | 14 | 3720 | 5000 | |
| 12 (13.8) | 220 | 4*10 | 21 | 1260 | 528 |
| | 330 | 5.5*9 | 28 | 1860 | 792 |
| | 470 | 5.5*9 | 28 | 1920 | 1128 |
| | | 6.3*9 | 28 | 2070 | 1128 |
| | 560 | 6.3*10 | 21 | 2040 | 1344 |
| | | 6.3*11 | 21 | 2160 | 1632 |
| | 680 | 8*10 | 21 | 2220 | 1632 |
| | | 8*11 | 17 | 2280 | 1968 |
| | 1000 | 8*12 | 17 | 2400 | 2400 |
| | 1200 | 8*14 | 17 | 2640 | 2880 |
| 1500 | 8*16 | 17 | 2880 | 3600 | |
| 16 (18.4) | 47 | 5*7 | 28 | 1230 | 500 |
| | 56 | 5*7 | 28 | 1260 | 500 |
| | 68 | 5*7 | 28 | 1290 | 500 |
| | 82 | 5*7 | 28 | 1320 | 500 |
| | 100 | 5*7 | 28 | 1350 | 500 |
| | | 6.3*5 | 35 | 1260 | 500 |
| | | 6.3*8 | 28 | 1680 | 500 |
| | 120 | 5*8 | 28 | 1410 | 500 |
| | 150 | 5*8 | 28 | 1440 | 500 |
| | 180 | 5*8 | 28 | 1470 | 576 |
| | | 6.3*7 | 22 | 1500 | 576 |
| | | 5*10 | 28 | 1560 | 704 |
| | 220 | 6.3*8 | 28 | 1620 | 704 |
| | | 6.3*10 | 21 | 1740 | 704 |
| | | 5.5*9 | 28 | 1650 | 864 |
| | 270 | 6.3*8 | 28 | 1680 | 864 |
| | | 8*9 | 28 | 1740 | 864 |
| | | 5.5*9 | 28 | 1740 | 1056 |
| | 330 | 6.3*9 | 28 | 1740 | 1056 |
| | | 6.3*10 | 21 | 1860 | 1056 |
| | | 5.5*10 | 28 | 1800 | 1504 |
| | 470 | 6.3*11 | 21 | 1860 | 1504 |
| | | 8*11 | 15 | 2760 | 1504 |
| | | 8*9 | 18 | 2460 | 1504 |
| | 560 | 8*11 | 15 | 1920 | 1792 |
| | | 8*13 | 15 | 1980 | 1792 |
| | | 10*12 | 15 | 2100 | 1792 |
| | 680 | 8*11 | 15 | 2040 | 2176 |
| | | 10*12 | 15 | 2160 | 2176 |
| | 820 | 8*13 | 15 | 2100 | 2624 |
| 10*12 | | 15 | 3060 | 2624 | |
| 1000 | 10*13 | 15 | 2400 | 3200 | |
| | 8*14 | 15 | 2160 | 3200 | |
| 1200 | 10*15 | 15 | 2580 | 3840 | |
| 1500 | 10*14 | 15 | 2880 | 4800 | |
| 1800 | 10*18 | 15 | 3300 | 4800 | |
| | 10*15 | 15 | 3240 | 5000 | |
| 2200 | 10*18 | 15 | 3480 | 5000 | |
| 3300 | 13*18 | 15 | 3660 | 5000 | |

Conductive Polymer Radial Type

PT series

■ STANDARD RATINGS

| VDC (SV) | Cap (μF) | Size ΦDxL(mm) | ESR (mΩ,20°C,100kHz)(max.) | Rated ripple current (mA _{rms} /125°C,100kHz) | Leakage Current (μA)(max.) |
|------------|----------|---------------|----------------------------|--|----------------------------|
| 20 (23) | 33 | 5*8 | 56 | 1140 | 500 |
| | 39 | 5*8 | 56 | 1170 | 500 |
| | 47 | 5*8 | 56 | 1320 | 500 |
| | 56 | 5*9 | 56 | 1260 | 500 |
| | 68 | 6.3*8 | 42 | 1260 | 500 |
| | 82 | 6.3*8 | 42 | 1290 | 500 |
| | 100 | 6.3*8 | 42 | 1320 | 500 |
| | 120 | 6.3*8 | 42 | 1380 | 500 |
| | 150 | 6.3*10 | 28 | 1410 | 600 |
| | 180 | 8*9 | 42 | 1470 | 720 |
| | 220 | 8*11 | 28 | 1530 | 880 |
| | 270 | 8*11 | 28 | 1620 | 1080 |
| | 330 | 8*11 | 28 | 1680 | 1320 |
| | | 6.3*11 | 28 | 1300 | 1320 |
| | 470 | 10*12 | 28 | 1740 | 1880 |
| | | 8*11 | 28 | 1400 | 1880 |
| | 560 | 10*13 | 28 | 1860 | 2240 |
| | 680 | 10*15 | 28 | 1980 | 2720 |
| | 8*15 | 28 | 1600 | 2720 | |
| 820 | 10*18 | 28 | 2040 | 3280 | |
| 1000 | 10*18 | 28 | 2340 | 4000 | |
| 25 (29) | 22 | 5*9 | 56 | 1100 | 500 |
| | 33 | 5*9 | 56 | 1110 | 500 |
| | 39 | 5*8 | 56 | 1140 | 500 |
| | 47 | 5*9 | 56 | 1170 | 500 |
| | 56 | 5*9 | 56 | 1230 | 500 |
| | 68 | 6.3*7 | 42 | 1260 | 500 |
| | 82 | 6.3*8 | 42 | 1290 | 500 |
| | | 6.3*8 | 42 | 1320 | 500 |
| | 100 | 6.3*10 | 28 | 1380 | 500 |
| | | 8*11 | 28 | 1470 | 500 |
| | 120 | 6.3*8 | 42 | 1380 | 600 |
| | 150 | 6.3*10 | 28 | 1410 | 750 |
| | 180 | 6.3*10 | 28 | 1450 | 900 |
| | | 8*9 | 42 | 1470 | 900 |
| | 220 | 8*11 | 28 | 1530 | 1100 |
| | | 10*12 | 28 | 1740 | 1100 |
| | 270 | 8*11 | 28 | 1620 | 1350 |
| | | 8*11 | 28 | 1680 | 1650 |
| | 330 | 10*12 | 28 | 1860 | 1650 |
| | | 10*10 | 28 | 1600 | 1650 |
| | 470 | 10*12 | 28 | 1680 | 2350 |
| | | 8*16 | 28 | 1620 | 2350 |
| | 560 | 10*13 | 28 | 1800 | 2800 |
| | | 10*15 | 28 | 1920 | 3400 |
| | 680 | 10*12 | 30 | 1700 | 3400 |
| | 820 | 10*18 | 28 | 1980 | 4100 |
| | 1000 | 10*18 | 28 | 2280 | 5000 |

※ Specifications subject to change without notice.