



PG Series

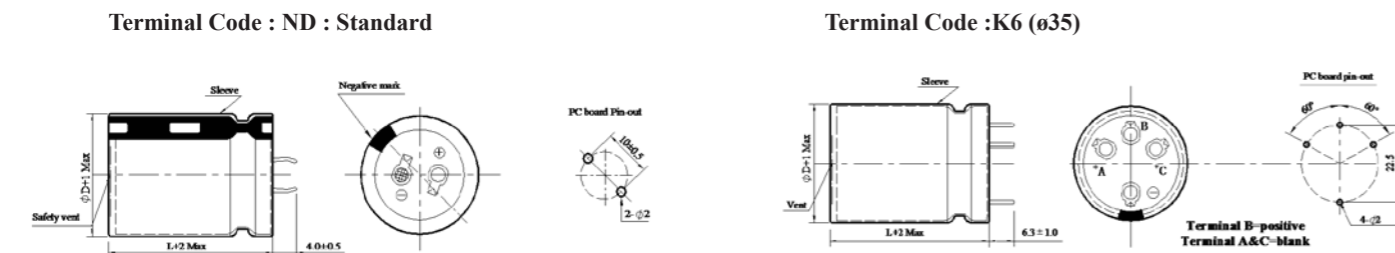
- Smaller size with higher ripple current.
- Load life 5,000 hours at 105°C .



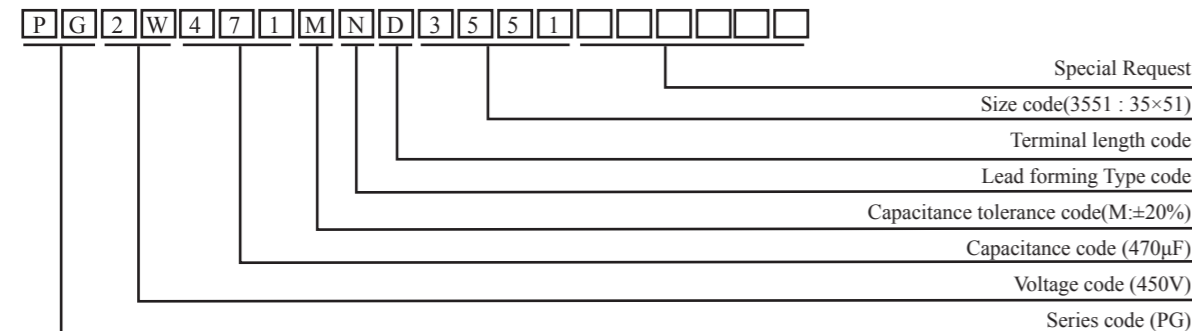
◆ SPECIFICATIONS

| Item | Performance Characteristics | | | | | | |
|---|---|-------------------------------|------|------|------|------|------|
| Category Temperature Range | -25 ~ +105°C | | | | | | |
| Working Voltage Range | 200 ~ 450Vdc | | | | | | |
| Capacitance Range | 68 ~ 1,800µF | | | | | | |
| Capacitance Tolerance | ±20% (at 25°C and 120Hz) | | | | | | |
| Dissipation Factor (tan δ) (at 25°C, 120Hz) | Rated Voltage (V) | 200 | 220 | 250 | 400 | 420 | 450 |
| | tanδ(Max) | 0.20 | 0.20 | 0.20 | 0.25 | 0.25 | 0.25 |
| Leakage Current | I=0.02CV or 3000µA, whichever is smaller | | | | | | |
| | I : Leakage current (µA) C : Rated capacitance (µF) V : Rated voltage (V) Impress the rated voltage for 5 minutes. | | | | | | |
| Endurance | The following requirements shall be satisfied when the capacitor are restored to 25°C after the rated voltage applied for 5,000 hours at 105°C. | | | | | | |
| | Capacitance change | ≒ ±20% of the initial value | | | | | |
| | Dissipation factor(tan δ) | ≒ 200% of the specified value | | | | | |
| | Leakage current | ≒ specified value | | | | | |
| Shelf Life | The following requirements shall be satisfied when the capacitor are restored to 25°C after exposing them for 1,000 hours at 105°C without voltage applied. | | | | | | |
| | Capacitance change | ≒ ±20% of the initial value | | | | | |
| | Dissipation factor(tanδ) | ≒ 200% of the specified value | | | | | |
| | Leakage current | ≒ 200% of the specified value | | | | | |
| Others | Conforms to JIS-C-5101-4 (1998), characteristic W. | | | | | | |

◆ DIMENSIONS (mm)



◆ PART NUMBERING SYSTEM (Example : 450V 470µF)



PG Series

- ◆ Case size & Permissible rated ripple current: (mA rms) at 120Hz / 105°C:

| Vdc uF ΦD | 200 | | | | | | | | Vdc uF ΦD | 220 | | | | | | | |
|--------------|--------|------|--------|------|--------|------|--------|------|--------------|--------|------|--------|------|--------|------|--------|------|
| | Φ 22 | | Φ 25 | | Φ 30 | | Φ 35 | | | Φ 22 | | Φ 25 | | Φ 30 | | Φ 35 | |
| | ΦD x L | RC | ΦD x L | RC | ΦD x L | RC | ΦD x L | RC | | ΦD x L | RC | ΦD x L | RC | ΦD x L | RC | ΦD x L | RC |
| 270 | 22x31 | 1010 | | | | | | | 220 | 22x31 | 900 | | | | | | |
| 330 | 22x35 | 1150 | | | | | | | 270 | 22x31 | 950 | | | | | | |
| 390 | 22x41 | 1210 | 25x31 | 1200 | | | | | 330 | 22x35 | 1200 | 25x31 | 1150 | | | | |
| 470 | 22x45 | 1330 | 25x35 | 1320 | | | | | 390 | 22x41 | 1300 | 25x35 | 1320 | | | | |
| 560 | 22x51 | 1470 | 25x41 | 1460 | 30x31 | 1460 | | | 470 | 22x45 | 1520 | 25x41 | 1400 | 30x31 | 1350 | | |
| 680 | | | 25x45 | 1620 | 30x35 | 1630 | | | 560 | 22x51 | 1610 | 25x45 | 1510 | 30x35 | 1510 | | |
| 820 | | | 25x51 | 1780 | 30x41 | 1830 | 35x31 | 1820 | 680 | | | 25x51 | 1710 | 30x41 | 1660 | 35x31 | 1620 |
| 1000 | | | | | 30x45 | 2100 | 35x35 | 2100 | 820 | | | | | 30x45 | 1820 | 35x35 | 1760 |
| 1200 | | | | | 30x51 | 2410 | 35x41 | 2420 | 1000 | | | | | 30x51 | 2160 | 35x41 | 2140 |
| 1500 | | | | | | | 35x51 | 2810 | 1200 | | | | | | | 35x45 | 2520 |
| 1800 | | | | | | | | | 1500 | | | | | | | 35x51 | 2960 |

| Vdc uF ΦD | 250 | | | | | | | | Vdc uF ΦD | 400 | | | | | | | |
|--------------|--------|------|--------|------|--------|------|--------|------|--------------|--------|------|--------|------|--------|------|--------|------|
| | Φ 22 | | Φ 25 | | Φ 30 | | Φ 35 | | | Φ 22 | | Φ 25 | | Φ 30 | | Φ 35 | |
| | ΦD x L | RC | ΦD x L | RC | ΦD x L | RC | ΦD x L | RC | | ΦD x L | RC | ΦD x L | RC | ΦD x L | RC | ΦD x L | RC |
| 120 | | | | | | | | | 68 | 22x25 | 470 | | | | | | |
| 150 | | | | | | | | | 82 | 22x25 | 580 | | | | | | |
| 180 | | | | | | | | | 100 | 22x31 | 640 | 25x25 | 640 | | | | |
| 220 | 22x31 | 910 | | | | | | | 120 | 22x35 | 690 | 25x31 | 680 | | | | |
| 270 | 22x35 | 1050 | | | | | | | 150 | 22x41 | 810 | 25x31 | 810 | 30x25 | 750 | | |
| 330 | 22x41 | 1170 | 25x35 | 1160 | | | | | 180 | 22x45 | 900 | 25x35 | 890 | 30x31 | 870 | | |
| 390 | 22x45 | 1360 | 25x41 | 1330 | 30x31 | 1360 | | | 220 | 22x51 | 1010 | 25x41 | 1000 | 30x35 | 1000 | 35x31 | 1000 |
| 470 | 22x51 | 1460 | 25x45 | 1430 | 30x35 | 1510 | | | 270 | | | 25x51 | 1100 | 30x41 | 1100 | 35x31 | 1110 |
| 560 | | | 25x51 | 1640 | 30x41 | 1640 | | | 330 | | | | | 30x45 | 1310 | 35x35 | 1310 |
| 680 | | | | | 30x45 | 1820 | 35x35 | 1820 | 390 | | | | | 30x51 | 1410 | 35x41 | 1420 |
| 820 | | | | | 30x51 | 1990 | 35x41 | 2030 | 470 | | | | | | | 35x45 | 1530 |
| 1000 | | | | | | | 35x45 | 2140 | 560 | | | | | | | 35x51 | 1680 |
| 1200 | | | | | | | 35x51 | 2760 | 680 | | | | | | | 35x55 | 1880 |

| Vdc uF ΦD | 420 | | | | | | | | Vdc uF ΦD | 450 | | | | | | | |
|--------------|--------|-----|--------|------|--------|------|--------|------|--------------|--------|-----|--------|------|--------|------|--------|------|
| | Φ 22 | | Φ 25 | | Φ 30 | | Φ 35 | | | Φ 22 | | Φ 25 | | Φ 30 | | Φ 35 | |
| | ΦD x L | RC | ΦD x L | RC | ΦD x L | RC | ΦD x L | RC | | ΦD x L | RC | ΦD x L | RC | ΦD x L | RC | ΦD x L | RC |
| 68 | 22x25 | 460 | | | | | | | 68 | 22x25 | 490 | | | | | | |
| 82 | 22x31 | 590 | 25x25 | 600 | | | | | 82 | 22x31 | 590 | | | | | | |
| 100 | 22x35 | 630 | 25x31 | 620 | | | | | 100 | 22x35 | 640 | 25x31 | 640 | 30x25 | 580 | | |
| 120 | 22x41 | 670 | 25x31 | 700 | 30x25 | 750 | | | 120 | 22x41 | 690 | 25x35 | 690 | 30x25 | 670 | | |
| 150 | 22x45 | 790 | 25x35 | 800 | 30x31 | 770 | | | 150 | 22x45 | 810 | 25x41 | 810 | 30x31 | 740 | 35x25 | 690 |
| 180 | 22x51 | 880 | 25x41 | 870 | 30x31 | 890 | | | 180 | 22x51 | 900 | 25x45 | 870 | 30x35 | 840 | 35x31 | 790 |
| 220 | | | 25x45 | 990 | 30x35 | 1050 | 35x31 | 980 | 220 | | | 25x51 | 1010 | 30x41 | 940 | 35x31 | 970 |
| 270 | | | 25x51 | 1270 | 30x41 | 1100 | 35x35 | 1080 | 270 | | | | | 30x45 | 1070 | 35x35 | 1080 |
| 330 | | | | | 30x45 | 1260 | 35x41 | 1230 | 330 | | | | | 30x51 | 1210 | 35x41 | 1250 |
| 390 | | | | | 30x51 | 1380 | 35x45 | 1350 | 390 | | | | | | | 35x45 | 1380 |
| 470 | | | | | | | 35x51 | 1450 | 470 | | | | | | | 35x51 | 1560 |
| 560 | | | | | | | 35x55 | 1650 | 560 | | | | | | | | |

◆ RIPPLE CURRENT MULTIPLIERS

| Vdc | Frequency (Hz) | | | | |
|-----------|----------------|------|------|------|------|
| | 50/60 | 120 | 1K | 10K | 100K |
| 200 ~ 250 | 0.80 | 1.00 | 1.20 | 1.30 | 1.40 |
| 400 ~ 450 | 0.80 | 1.00 | 1.10 | 1.12 | 1.15 |