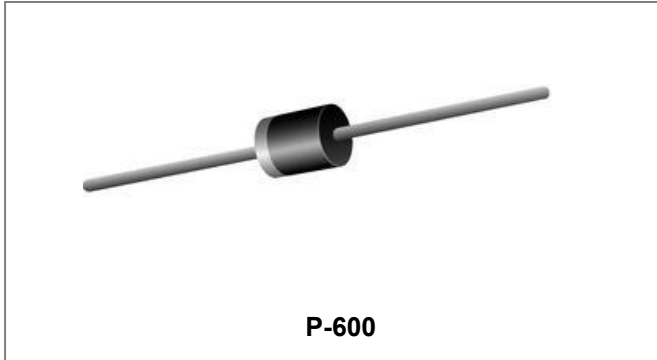


5KP SERIES GLASS PASSIVATED TRANSIENT VOLTAGE SUPPRESSOR



Features

- Glass Passivated Die Construction
- 5000W Peak Pulse Power Dissipation
- 5.0V- 110V Standoff Voltage
- Uni- and Bi-Directional Versions Available
- Excellent Clamping Capability
- Fast Response Time
- Plastic Case Material has UL Flammability Classification Rating 94V-0
- This is a Pb – Free Device
- All SMC Parts are Traceable to the Wafer Lot
- Additional testing can be offered upon request

Circuit Diagram



Mechanical Data

- Case: JEDEC P-600 Molded Plastic
- Terminals: Axial leads , Solderable per MIL-STD 750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Mounting Position: Any
- Weight:2.1 grams(approx.)

Maximum Ratings and Thermal Characteristics@ $T_A=25^{\circ}\text{C}$ unless otherwise specified

| Parameter | Symbol | Value | Unit |
|--|-----------------|-------------|----------------------|
| Peak Pulse Power Dissipation at $T_A=25^{\circ}\text{C}$ (Fig.1)(Note 1, 2, 5) | P_{PPM} | 5000 | W |
| Peak Forward Surge Current, 8.3ms Single Half Sine Wave (Fig.6),(Note 3) | I_{FSM} | 400 | A |
| Peak Pulse Current on 10x1000 μs Waveform(Fig.3)(Note 1) | I_{PPM} | See Table 1 | A |
| Steady State Power Dissipation (Note 2, 4) | $P_{M(AV)}$ | 8.0 | W |
| Typical Thermal Resistance Junction to Lead | $R_{\theta JL}$ | 8.0 | $^{\circ}\text{C/W}$ |
| Typical Thermal Resistance Junction to Ambient | $R_{\theta JA}$ | 40 | $^{\circ}\text{C/W}$ |
| Operating Junction and Storage Temperature Range | T_J, T_{STG} | -55 to 175 | $^{\circ}\text{C}$ |

- Notes:**
1. Non-repetitive current pulse, per Fig. 3 and derated above $T_A = 25^{\circ}\text{C}$ per Fig. 2.
 2. Mounted on 20mm² copper pads.
 3. 8.3ms single half sine wave, duty cycle=4 pulses per minute maximum.
 4. Lead temperature at $75^{\circ}\text{C}=T_L$
 5. Peak pulse power waveform is 10x1000 μs

Electrical Characteristics @T_A=25°C unless otherwise specified

UNI-DIRECTIONAL 5000 WATT AXIAL LEAD TVS

| UNI-DIRECTIONAL PART NUMBER | REVERSE STAND-OFF VOLTAGE VRWM (V) | BREAKDOWN VOLTAGE VBR (V) MIN. @IT | BREAKDOWN VOLTAGE VBR (V) MAX. @IT | TEST CURRENT IT (mA) | MAXIMUM CLAMPING VOLTAGE @Ipp Vc (V) | PEAK PULSE CURRENT Ipp (A) | REVERSE LEAKAGE @VRWM IR (uA) |
|-----------------------------|------------------------------------|------------------------------------|------------------------------------|----------------------|--------------------------------------|----------------------------|-------------------------------|
| 5KP5.0 | 5.00 | 6.40 | 7.82 | 50 | 9.6 | 520 | 2000 |
| 5KP5.0A | 5.00 | 6.40 | 7.00 | 50 | 9.2 | 543 | 2000 |
| 5KP6.0 | 6.00 | 6.67 | 8.15 | 50 | 11.4 | 439 | 5000 |
| 5KP6.0A | 6.00 | 6.67 | 7.37 | 50 | 10.3 | 485 | 5000 |
| 5KP6.5 | 6.50 | 7.22 | 8.82 | 50 | 12.3 | 407 | 2000 |
| 5KP6.5A | 6.50 | 7.22 | 7.98 | 50 | 11.2 | 447 | 2000 |
| 5KP7.0 | 7.00 | 7.78 | 9.51 | 50 | 13.3 | 378 | 1000 |
| 5KP7.0A | 7.00 | 7.78 | 8.60 | 50 | 12.0 | 417 | 1000 |
| 5KP7.5 | 7.50 | 8.33 | 10.02 | 5 | 14.3 | 350 | 250 |
| 5KP7.5A | 7.50 | 8.33 | 9.21 | 5 | 12.9 | 388 | 250 |
| 5KP8.0 | 8.00 | 8.99 | 10.90 | 5 | 15.0 | 333 | 150 |
| 5KP8.0A | 8.00 | 8.99 | 9.83 | 5 | 13.6 | 367 | 150 |
| 5KP8.5 | 8.50 | 9.44 | 11.50 | 5 | 15.9 | 314 | 50 |
| 5KP8.5A | 8.50 | 9.44 | 10.40 | 5 | 14.4 | 347 | 50 |
| 5KP9.0 | 9.00 | 10.00 | 12.20 | 5 | 16.9 | 295 | 20 |
| 5KP9.0A | 9.00 | 10.00 | 11.20 | 5 | 15.4 | 325 | 20 |
| 5KP10 | 10.00 | 11.10 | 13.60 | 5 | 18.8 | 266 | 10 |
| 5KP10A | 10.00 | 11.10 | 12.30 | 5 | 17.0 | 294 | 10 |
| 5KP11 | 11.00 | 12.20 | 14.90 | 5 | 20.1 | 249 | 10 |
| 5KP11A | 11.00 | 12.20 | 13.50 | 5 | 18.2 | 274 | 10 |
| 5KP12 | 12.00 | 13.30 | 16.30 | 5 | 22.0 | 227 | 10 |
| 5KP12A | 12.00 | 13.30 | 14.70 | 5 | 19.9 | 251 | 10 |
| 5KP13 | 13.00 | 14.40 | 17.60 | 5 | 23.8 | 210 | 10 |
| 5KP13A | 13.00 | 14.40 | 15.90 | 5 | 21.5 | 232 | 10 |
| 5KP14 | 14.00 | 15.60 | 19.10 | 5 | 25.8 | 194 | 10 |
| 5KP14A | 14.00 | 15.60 | 17.20 | 5 | 23.2 | 215 | 10 |
| 5KP15 | 15.00 | 16.70 | 20.40 | 5 | 26.9 | 188 | 10 |
| 5KP15A | 15.00 | 16.70 | 18.50 | 5 | 24.4 | 206 | 10 |
| 5KP16 | 16.00 | 17.80 | 21.80 | 5 | 28.8 | 176 | 10 |
| 5KP16A | 16.00 | 17.80 | 19.70 | 5 | 26.0 | 192 | 10 |
| 5KP17 | 17.00 | 18.90 | 23.10 | 5 | 30.5 | 164 | 10 |
| 5KP17A | 17.00 | 18.90 | 20.90 | 5 | 27.6 | 181 | 10 |
| 5KP18 | 18.00 | 20.00 | 24.40 | 5 | 32.2 | 155 | 10 |
| 5KP18A | 18.00 | 20.00 | 22.10 | 5 | 29.2 | 172 | 10 |
| 5KP20 | 20.00 | 22.20 | 27.10 | 5 | 35.8 | 139 | 10 |
| 5KP20A | 20.00 | 22.20 | 24.50 | 5 | 32.4 | 154 | 10 |
| 5KP22 | 22.00 | 24.40 | 29.80 | 5 | 39.4 | 127 | 10 |
| 5KP22A | 22.00 | 24.40 | 26.90 | 5 | 35.5 | 141 | 10 |
| 5KP24 | 24.00 | 26.70 | 32.60 | 5 | 43.0 | 116 | 10 |
| 5KP24A | 24.00 | 26.70 | 29.50 | 5 | 38.9 | 128 | 10 |
| 5KP26 | 26.00 | 28.90 | 35.30 | 5 | 46.6 | 107 | 10 |
| 5KP26A | 26.00 | 28.90 | 31.90 | 5 | 42.1 | 119 | 10 |
| 5KP28 | 28.00 | 31.10 | 38.00 | 5 | 50.0 | 99 | 10 |
| 5KP28A | 28.00 | 31.10 | 34.40 | 5 | 45.4 | 110 | 10 |
| 5KP30 | 30.00 | 33.30 | 40.70 | 5 | 53.5 | 93 | 10 |
| 5KP30A | 30.00 | 33.30 | 36.90 | 5 | 48.4 | 103 | 10 |
| 5KP33 | 33.00 | 36.70 | 44.90 | 5 | 59.0 | 85 | 10 |
| 5KP33A | 33.00 | 36.70 | 40.60 | 5 | 53.3 | 94 | 10 |
| 5KP36 | 36.00 | 40.00 | 48.90 | 5 | 64.3 | 78 | 10 |
| 5KP36A | 36.00 | 40.00 | 44.20 | 5 | 58.1 | 85 | 10 |
| 5KP40 | 40.00 | 44.40 | 54.30 | 5 | 71.4 | 70 | 10 |
| 5KP40A | 40.00 | 44.40 | 49.10 | 5 | 64.5 | 78 | 10 |
| 5KP43 | 43.00 | 47.80 | 58.40 | 5 | 76.6 | 65 | 10 |
| 5KP43A | 43.00 | 47.80 | 52.80 | 5 | 69.4 | 72 | 10 |
| 5KP45 | 45.00 | 50.00 | 61.10 | 5 | 80.3 | 62 | 10 |
| 5KP45A | 45.00 | 50.00 | 55.30 | 5 | 72.7 | 69 | 10 |
| 5KP48 | 48.00 | 53.30 | 65.10 | 5 | 85.5 | 58 | 10 |
| 5KP48A | 48.00 | 53.30 | 58.90 | 5 | 77.4 | 65 | 10 |
| 5KP51 | 51.00 | 56.70 | 69.30 | 5 | 91.1 | 55 | 10 |
| 5KP51A | 51.00 | 56.70 | 62.70 | 5 | 82.4 | 61 | 10 |
| 5KP54 | 54.00 | 60.00 | 73.30 | 5 | 96.3 | 52 | 10 |
| 5KP54A | 54.00 | 60.00 | 66.30 | 5 | 87.1 | 57 | 10 |
| 5KP58 | 58.00 | 64.40 | 78.70 | 5 | 103.0 | 49 | 10 |
| 5KP58A | 58.00 | 64.40 | 71.20 | 5 | 93.6 | 53 | 10 |
| 5KP60 | 60.00 | 66.70 | 81.50 | 5 | 107.0 | 47 | 10 |
| 5KP60A | 60.00 | 66.70 | 73.70 | 5 | 96.8 | 52 | 10 |
| 5KP64 | 64.00 | 71.10 | 86.90 | 5 | 114.0 | 44 | 10 |
| 5KP64A | 64.00 | 71.10 | 78.60 | 5 | 103.0 | 49 | 10 |
| 5KP70 | 70.00 | 77.80 | 95.10 | 5 | 125.0 | 40 | 10 |
| 5KP70A | 70.00 | 77.80 | 86.00 | 5 | 113.0 | 44 | 10 |
| 5KP75 | 75.00 | 83.30 | 102.00 | 5 | 134.0 | 37 | 10 |
| 5KP75A | 75.00 | 83.30 | 92.10 | 5 | 121.0 | 41 | 10 |
| 5KP78 | 78.00 | 86.70 | 106.00 | 5 | 139.0 | 36 | 10 |
| 5KP78A | 78.00 | 86.70 | 95.80 | 5 | 126.0 | 40 | 10 |
| 5KP85 | 85.00 | 94.40 | 115.00 | 5 | 151.0 | 33 | 10 |
| 5KP85A | 85.00 | 94.40 | 104.00 | 5 | 137.0 | 36 | 10 |
| 5KP90 | 90.00 | 100.00 | 122.00 | 5 | 160.0 | 31 | 10 |
| 5KP90A | 90.00 | 100.00 | 111.00 | 5 | 146.0 | 34 | 10 |
| 5KP100 | 100.00 | 111.00 | 136.00 | 5 | 179.0 | 28 | 10 |
| 5KP100A | 100.00 | 111.00 | 123.00 | 5 | 162.0 | 31 | 10 |
| 5KP110 | 110.00 | 122.00 | 149.00 | 5 | 196.0 | 26 | 10 |
| 5KP110A | 110.00 | 122.00 | 135.00 | 5 | 177.0 | 28 | 10 |

"C" Suffix Designates Bi-directional Devices
 "A" Suffix Designates 5% Tolerance Devices
 No Suffix Designates 10% Tolerance Devices

BI-DIRECTIONAL 5000 WATT AXIAL LEAD TVS

| BI-DIRECTIONAL PART NUMBER | REVERSE STAND-OFF VOLTAGE VRWM (V) | BREAKDOWN VOLTAGE VBR (V) MIN. @IT | BREAKDOWN VOLTAGE VBR (V) MAX. @IT | TEST CURRENT IT (mA) | MAXIMUM CLAMPING VOLTAGE @Ipp Vc (V) | PEAK PULSE CURRENT Ipp (A) | REVERSE LEAKAGE @VRWM IR (uA) |
|----------------------------|------------------------------------|------------------------------------|------------------------------------|----------------------|--------------------------------------|----------------------------|-------------------------------|
| 5KP5.0C | 5.00 | 6.40 | 7.82 | 50 | 9.6 | 520 | 4000 |
| 5KP5.0CA | 5.00 | 6.40 | 7.00 | 50 | 9.2 | 543 | 4000 |
| 5KP6.0C | 6.00 | 6.67 | 8.15 | 50 | 11.4 | 439 | 10000 |
| 5KP6.0CA | 6.00 | 6.67 | 7.37 | 50 | 10.3 | 485 | 10000 |
| 5KP6.5C | 6.50 | 7.22 | 8.82 | 50 | 12.3 | 407 | 4000 |
| 5KP6.5CA | 6.50 | 7.22 | 7.98 | 50 | 11.2 | 447 | 4000 |
| 5KP7.0C | 7.00 | 7.78 | 9.51 | 50 | 13.3 | 378 | 2000 |
| 5KP7.0CA | 7.00 | 7.78 | 8.60 | 50 | 12.0 | 417 | 2000 |
| 5KP7.5C | 7.50 | 8.33 | 10.02 | 5 | 14.3 | 350 | 500 |
| 5KP7.5CA | 7.50 | 8.33 | 9.21 | 5 | 12.9 | 388 | 500 |
| 5KP8.0C | 8.00 | 8.99 | 10.90 | 5 | 15.0 | 333 | 300 |
| 5KP8.0CA | 8.00 | 8.99 | 9.83 | 5 | 13.6 | 367 | 300 |
| 5KP8.5C | 8.50 | 9.44 | 11.50 | 5 | 15.9 | 314 | 100 |
| 5KP8.5CA | 8.50 | 9.44 | 10.40 | 5 | 14.4 | 347 | 100 |
| 5KP9.0C | 9.00 | 10.00 | 12.20 | 5 | 16.9 | 295 | 40 |
| 5KP9.0CA | 9.00 | 10.00 | 11.20 | 5 | 15.4 | 325 | 40 |
| 5KP10C | 10.00 | 11.10 | 13.60 | 5 | 18.8 | 266 | 10 |
| 5KP10CA | 10.00 | 11.10 | 12.30 | 5 | 17.0 | 294 | 10 |
| 5KP11C | 11.00 | 12.20 | 14.90 | 5 | 20.1 | 249 | 10 |
| 5KP11CA | 11.00 | 12.20 | 13.50 | 5 | 18.2 | 274 | 10 |
| 5KP12C | 12.00 | 13.30 | 16.30 | 5 | 22.0 | 227 | 10 |
| 5KP12CA | 12.00 | 13.30 | 14.70 | 5 | 19.9 | 251 | 10 |
| 5KP13C | 13.00 | 14.40 | 17.60 | 5 | 23.8 | 210 | 10 |
| 5KP13CA | 13.00 | 14.40 | 15.90 | 5 | 21.5 | 232 | 10 |
| 5KP14C | 14.00 | 15.60 | 19.10 | 5 | 25.8 | 194 | 10 |
| 5KP14CA | 14.00 | 15.60 | 17.20 | 5 | 23.2 | 215 | 10 |
| 5KP15C | 15.00 | 16.70 | 20.40 | 5 | 26.9 | 188 | 10 |
| 5KP15CA | 15.00 | 16.70 | 18.50 | 5 | 24.4 | 206 | 10 |
| 5KP16C | 16.00 | 17.80 | 21.80 | 5 | 28.8 | 176 | 10 |
| 5KP16CA | 16.00 | 17.80 | 19.70 | 5 | 26.0 | 192 | 10 |
| 5KP17C | 17.00 | 18.90 | 23.10 | 5 | 30.5 | 164 | 10 |
| 5KP17CA | 17.00 | 18.90 | 20.90 | 5 | 27.6 | 181 | 10 |
| 5KP18C | 18.00 | 20.00 | 24.40 | 5 | 32.2 | 155 | 10 |
| 5KP18CA | 18.00 | 20.00 | 22.10 | 5 | 29.2 | 172 | 10 |
| 5KP20C | 20.00 | 22.20 | 27.10 | 5 | 35.8 | 139 | 10 |
| 5KP20CA | 20.00 | 22.20 | 24.50 | 5 | 32.4 | 154 | 10 |
| 5KP22C | 22.00 | 24.40 | 29.80 | 5 | 39.4 | 127 | 10 |
| 5KP22CA | 22.00 | 24.40 | 26.90 | 5 | 35.5 | 141 | 10 |
| 5KP24C | 24.00 | 26.70 | 32.60 | 5 | 43.0 | 116 | 10 |
| 5KP24CA | 24.00 | 26.70 | 29.50 | 5 | 38.9 | 128 | 10 |
| 5KP26C | 26.00 | 28.90 | 35.30 | 5 | 46.6 | 107 | 10 |
| 5KP26CA | 26.00 | 28.90 | 31.90 | 5 | 42.1 | 119 | 10 |
| 5KP28C | 28.00 | 31.10 | 38.00 | 5 | 50.0 | 99 | 10 |
| 5KP28CA | 28.00 | 31.10 | 34.40 | 5 | 45.4 | 110 | 10 |
| 5KP30C | 30.00 | 33.30 | 40.70 | 5 | 53.5 | 93 | 10 |
| 5KP30CA | 30.00 | 33.30 | 36.90 | 5 | 48.4 | 103 | 10 |
| 5KP33C | 33.00 | 36.70 | 44.90 | 5 | 59.0 | 85 | 10 |
| 5KP33CA | 33.00 | 36.70 | 40.60 | 5 | 53.3 | 94 | 10 |
| 5KP36C | 36.00 | 40.00 | 48.90 | 5 | 64.3 | 78 | 10 |
| 5KP36CA | 36.00 | 40.00 | 44.20 | 5 | 58.1 | 85 | 10 |
| 5KP40C | 40.00 | 44.40 | 54.30 | 5 | 71.4 | 70 | 10 |
| 5KP40CA | 40.00 | 44.40 | 49.10 | 5 | 64.5 | 78 | 10 |
| 5KP43C | 43.00 | 47.80 | 58.40 | 5 | 76.6 | 65 | 10 |
| 5KP43CA | 43.00 | 47.80 | 52.80 | 5 | 69.4 | 72 | 10 |
| 5KP45C | 45.00 | 50.00 | 61.10 | 5 | 80.3 | 62 | 10 |
| 5KP45CA | 45.00 | 50.00 | 55.30 | 5 | 72.7 | 69 | 10 |
| 5KP48C | 48.00 | 53.30 | 65.10 | 5 | 85.5 | 58 | 10 |
| 5KP48CA | 48.00 | 53.30 | 58.90 | 5 | 77.4 | 65 | 10 |
| 5KP51C | 51.00 | 56.70 | 69.30 | 5 | 91.1 | 55 | 10 |
| 5KP51CA | 51.00 | 56.70 | 62.70 | 5 | 82.4 | 61 | 10 |
| 5KP54C | 54.00 | 60.00 | 73.30 | 5 | 96.3 | 52 | 10 |
| 5KP54CA | 54.00 | 60.00 | 66.30 | 5 | 87.1 | 57 | 10 |
| 5KP58C | 58.00 | 64.40 | 78.70 | 5 | 103.0 | 49 | 10 |
| 5KP58CA | 58.00 | 64.40 | 71.20 | 5 | 93.6 | 53 | 10 |
| 5KP60C | 60.00 | 66.70 | 81.50 | 5 | 107.0 | 47 | 10 |
| 5KP60CA | 60.00 | 66.70 | 73.70 | 5 | 96.8 | 52 | 10 |
| 5KP64C | 64.00 | 71.10 | 86.90 | 5 | 114.0 | 44 | 10 |
| 5KP64CA | 64.00 | 71.10 | 78.60 | 5 | 103.0 | 49 | 10 |
| 5KP70C | 70.00 | 77.80 | 95.10 | 5 | 125.0 | 40 | 10 |
| 5KP70CA | 70.00 | 77.80 | 86.00 | 5 | 113.0 | 44 | 10 |
| 5KP75C | 75.00 | 83.30 | 102.00 | 5 | 134.0 | 37 | 10 |
| 5KP75CA | 75.00 | 83.30 | 92.10 | 5 | 121.0 | 41 | 10 |
| 5KP78C | 78.00 | 86.70 | 106.00 | 5 | 139.0 | 36 | 10 |
| 5KP78CA | 78.00 | 86.70 | 95.80 | 5 | 126.0 | 40 | 10 |
| 5KP85C | 85.00 | 94.40 | 115.00 | 5 | 151.0 | 33 | 10 |
| 5KP85CA | 85.00 | 94.40 | 104.00 | 5 | 137.0 | 36 | 10 |
| 5KP90C | 90.00 | 100.00 | 122.00 | 5 | 160.0 | 31 | 10 |
| 5KP90CA | 90.00 | 100.00 | 111.00 | 5 | 146.0 | 34 | 10 |
| 5KP100C | 100.00 | 111.00 | 136.00 | 5 | 179.0 | 28 | 10 |
| 5KP100CA | 100.00 | 111.00 | 123.00 | 5 | 162.0 | 31 | 10 |
| 5KP110C | 110.00 | 122.00 | 149.00 | 5 | 196.0 | 26 | 10 |
| 5KP110CA | 110.00 | 122.00 | 135.00 | 5 | 177.0 | 28 | 10 |

"C" Suffix Designates Bi-directional Devices
 "A" Suffix Designates 5% Tolerance Devices
 No Suffix Designates 10% Tolerance Devices

- China - Germany - Korea - Singapore - United States •
- <http://www.smc-diodes.com> - sales@smc-diodes.com •

Ratings and Characteristics Curves

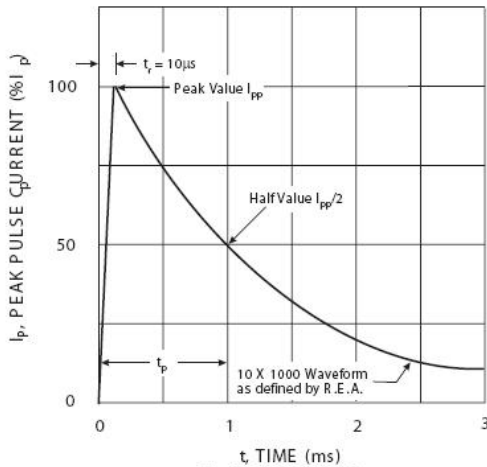


Fig. 1 Pulse Waveform

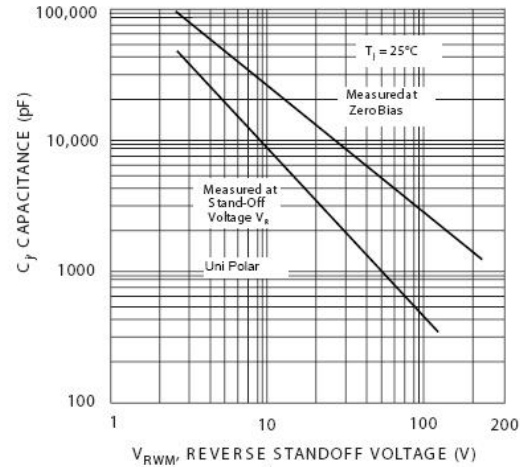


Fig. 2 Typical Junction Capacitance

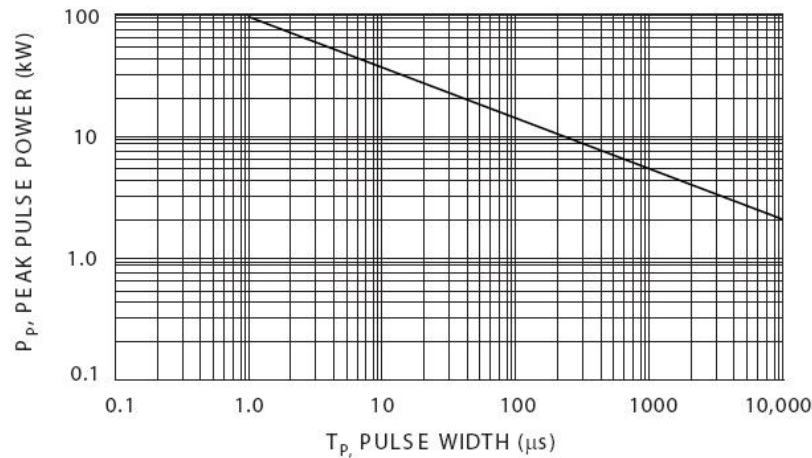


Fig. 3 Pulse Derating Curve

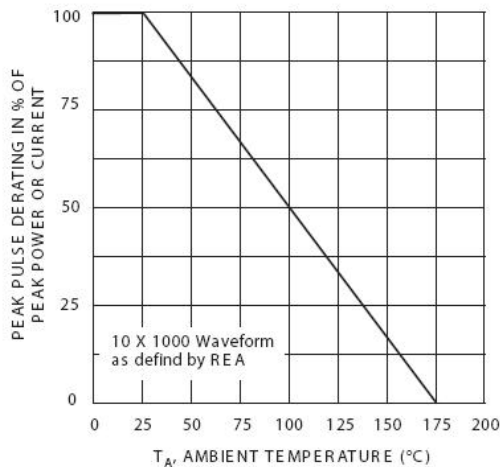


Fig. 4 Pulse Derating Curve

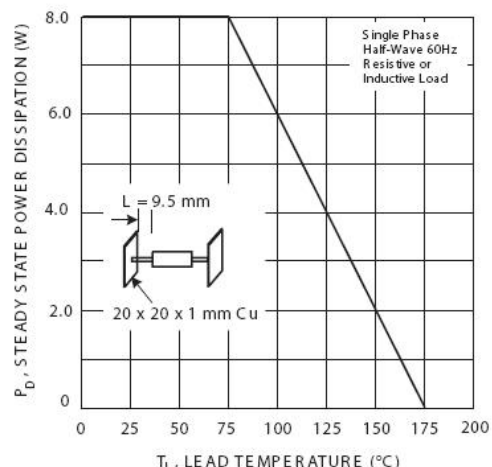
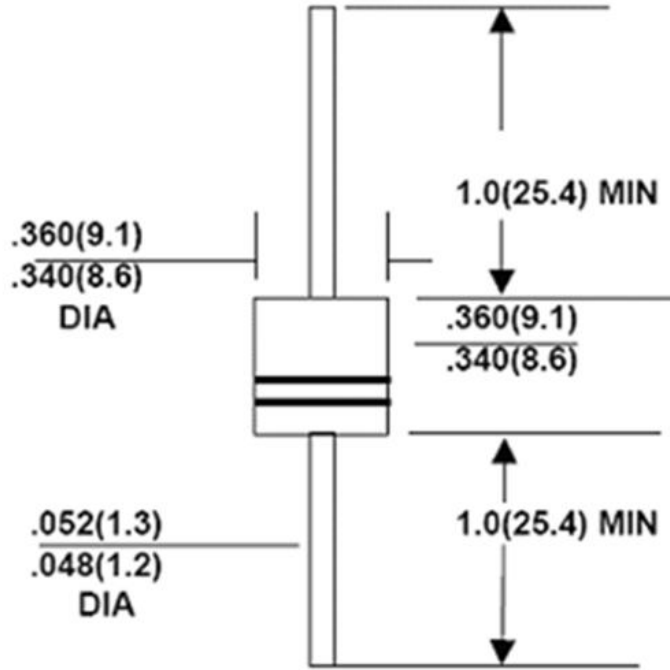


Fig. 5 Steady State Power Derating

Mechanical Dimensions P-600(Inches/Millimeters)

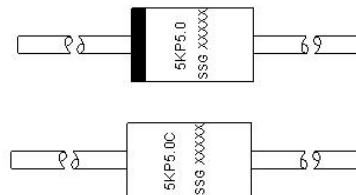


Ordering Information

| Device | Package | Shipping |
|------------|----------------|---------------|
| 5KP SERIES | P-600(Pb-Free) | 800pcs / reel |

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram

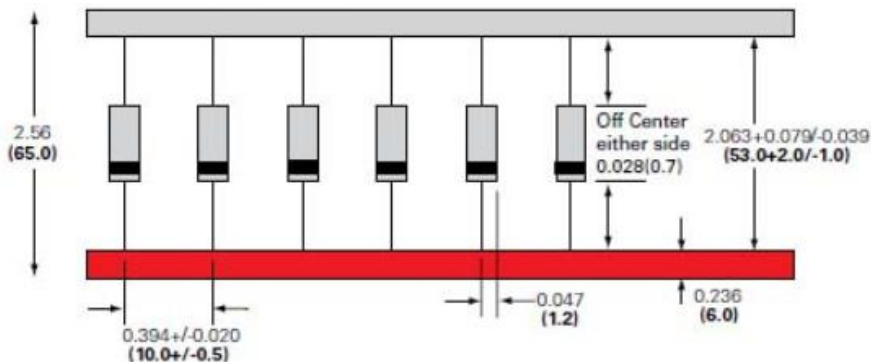


Where XXXXX is YYWWL

5KP5.0/5KP5.0C = Part Name
YY = Year
WW = Week
L = Lot Number

Cautions: Molding resin
Epoxy resin UL:94V-0

Carrier Tape Specification P-600



DISCLAIMER:

1- The information given herein, including the specifications and dimensions, is subject to change without prior notice to improve product characteristics. Before ordering, purchasers are advised to contact the SMC - Sangdest Microelectronics (Nanjing) Co., Ltd sales department for the latest version of the datasheet(s).

2- In cases where extremely high reliability is required (such as use in nuclear power control, aerospace and aviation, traffic equipment, medical equipment, and safety equipment), safety should be ensured by using semiconductor devices that feature assured safety or by means of users' fail-safe precautions or other arrangement.

3- In no event shall SMC - Sangdest Microelectronics (Nanjing) Co., Ltd be liable for any damages that may result from an accident or any other cause during operation of the user's units according to the datasheet(s). SMC - Sangdest Microelectronics (Nanjing) Co., Ltd assumes no responsibility for any intellectual property claims or any other problems that may result from applications of information, products or circuits described in the datasheets.

4- In no event shall SMC - Sangdest Microelectronics (Nanjing) Co., Ltd be liable for any failure in a semiconductor device or any secondary damage resulting from use at a value exceeding the absolute maximum rating.

5- No license is granted by the datasheet(s) under any patents or other rights of any third party or SMC - Sangdest Microelectronics (Nanjing) Co., Ltd.

6- The datasheet(s) may not be reproduced or duplicated, in any form, in whole or part, without the expressed written permission of SMC - Sangdest Microelectronics (Nanjing) Co., Ltd.

7- The products (technologies) described in the datasheet(s) are not to be provided to any party whose purpose in their application will hinder maintenance of international peace and safety nor are they to be applied to that purpose by their direct purchasers or any third party. When exporting these products (technologies), the necessary procedures are to be taken in accordance with related laws and regulations..