

Features

- Halogen Free. "Green" Device (Note 1)
- High Surge Capability
- Low Forward Voltage
- Low Profile Package
- Lead Free Finish/RoHS Compliant(Note 2) ("P" Suffix Designates RoHS Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1

Maximum Ratings

- Operating Junction Temperature Range(SMD22PL~SMD24PL):-65°C to +125°C
- Operating Junction Temperature Range(SMD26PL~SMD210PL):-65°C to +150°C
- Storage Temperature Range(SMD22PL~SMD24PL):-65°C to +125°C
- Storage Temperature Range(SMD26PL~SMD210PL):-65°C to +150°C
- Typical Thermal Resistance(Note3): 60°C/W Junction to Ambient
- Typical Thermal Resistance(Note3): 30°C/W Junction to Case
- Typical Thermal Resistance(Note3): 21°C/W Junction to Lead

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| SMD22PL | M2 | 20V | 14V | 20V |
| SMD24PL | M4 | 40V | 28V | 40V |
| SMD26PL | M6 | 60V | 42V | 60V |
| SMD28PL | M8 | 80V | 56V | 80V |
| SMD210PL | M10 | 100V | 70V | 100V |

Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|------------------------------|-------------|--------------------------------------|--|
| Average Forward Current | $I_{F(AV)}$ | 2.0A | $T_L=90^\circ\text{C}$ |
| Surge Forward Current | I_{FSM} | 50A | 8.3ms, Half Sine |
| Power Dissipation | P_D | 1.68W | |
| Forward Voltage | V_F | 0.5V(Max) 0.7V(Max) 0.85V(Max) | $I_{FM}=2.0A;$ $T_J=25^\circ\text{C}$ |
| Maximum DC Reverse Current | I_R | 0.1mA(Max) | $T_J=25^\circ\text{C}$ |
| Typical Junction Capacitance | C_J | 210pF(Typ) | $f=1.0\text{MHz}, V_R=4V$ |

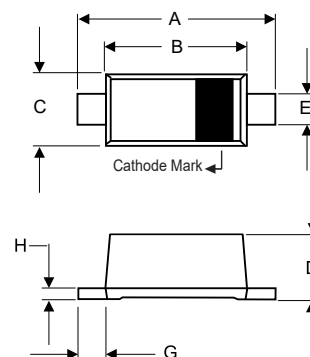
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

2. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7a.

3. Thermal Resistance:PC Board Mounted on 0.2*0.2"(5*5mm) copper pad area.

Schottky Barrier Diodes 20 to 100 Volts

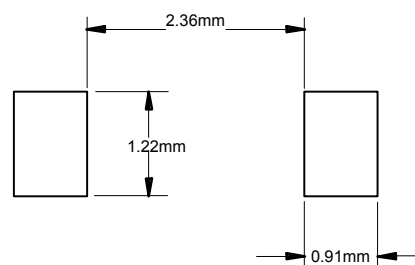
SOD-123FL



DIMENSIONS

| DIM | INCHES | | MM | | NOTE |
|-----|--------|-------|------|------|------|
| | MIN | MAX | MIN | MAX | |
| A | 0.130 | 0.152 | 3.30 | 3.85 | |
| B | 0.100 | 0.122 | 2.55 | 3.10 | |
| C | 0.055 | 0.075 | 1.40 | 1.90 | |
| D | 0.035 | 0.053 | 0.90 | 1.35 | |
| E | 0.020 | 0.041 | 0.50 | 1.05 | |
| G | 0.010 | ---- | 0.25 | ---- | |
| H | ---- | 0.010 | ---- | 0.25 | |

Suggested Solder Pad Layout



Curve Characteristics

Fig. 1 - Forward Current Derating Curve

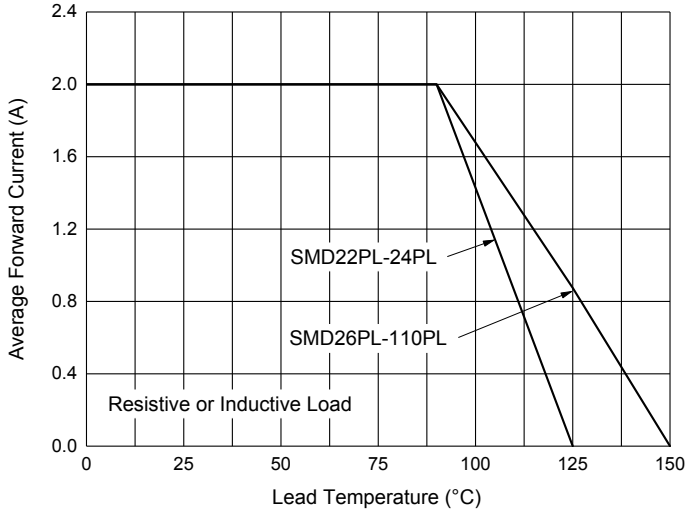


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

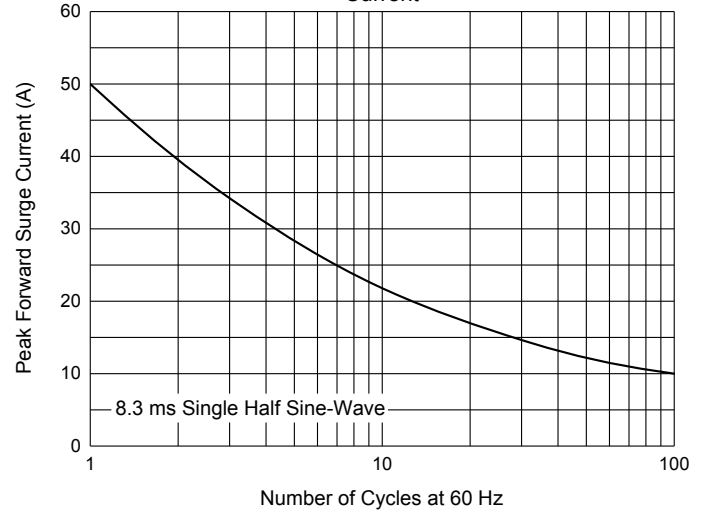


Fig. 3 - Typical Instantaneous Forward Characteristics

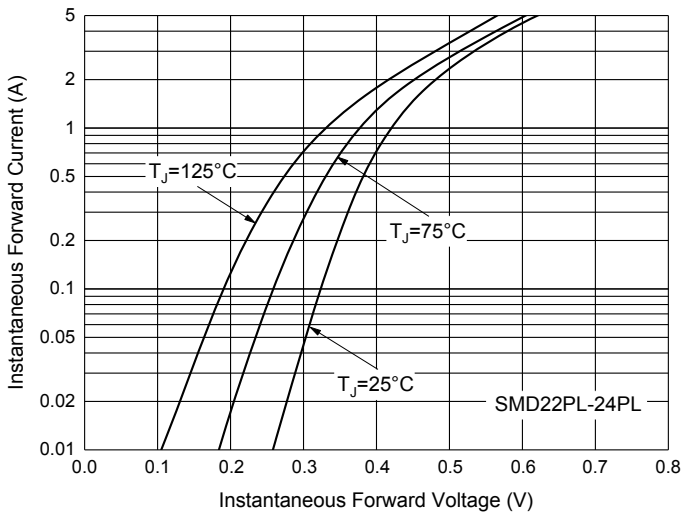


Fig. 4 - Typical Instantaneous Forward Characteristics

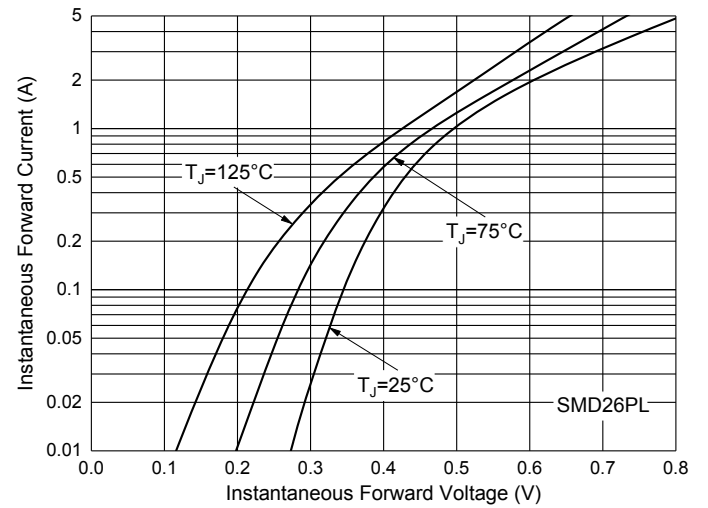


Fig. 5 - Typical Instantaneous Forward Characteristics

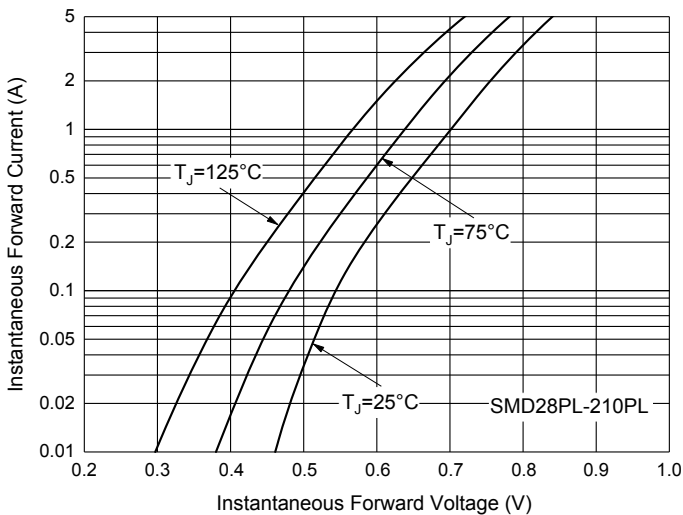
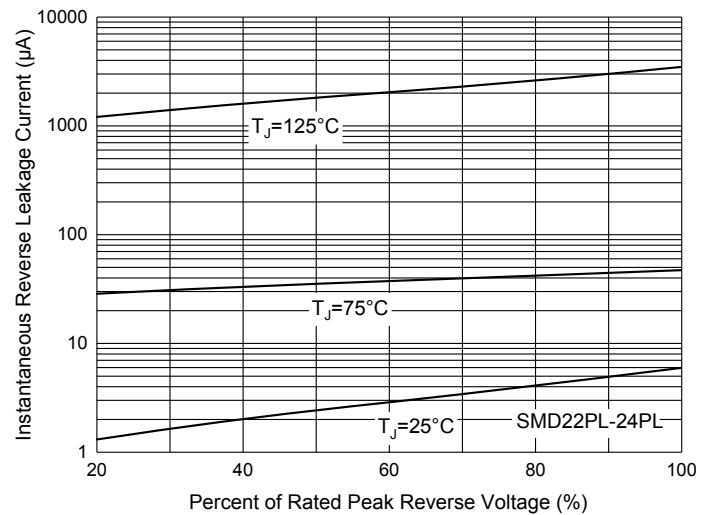


Fig. 6 - Typical Reverse Leakage Characteristics



Curve Characteristics

Fig. 7 - Typical Reverse Leakage Characteristics

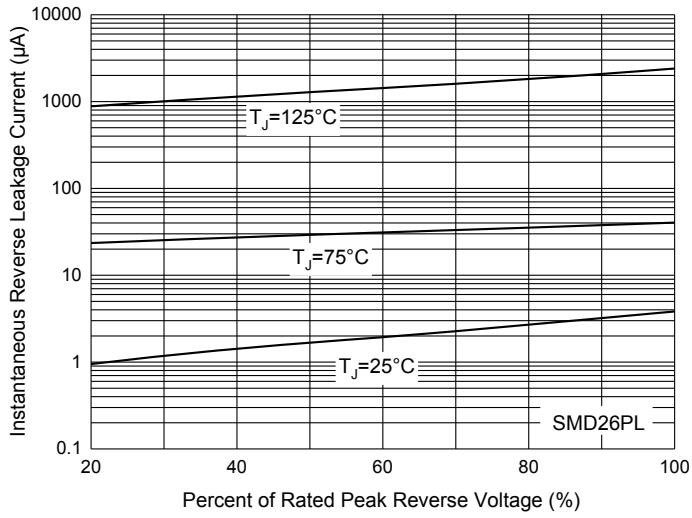
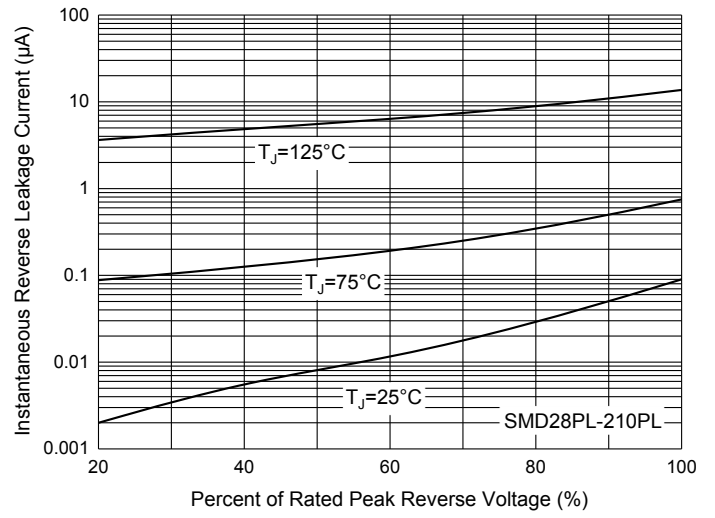


Fig. 8 - Typical Reverse Leakage Characteristics



Ordering Information

| Device | Packing |
|----------------|-------------------------|
| Part Number-TP | Tape&Reel: 2.5Kpcs/Reel |

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