

## Features

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- High Surge Capability
- Low Forward Voltage
- Low Profile Package
- Lead Free Finish/RoHS Compliant(Note 1) ("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(Note2): 60°C/W Junction to Ambient
- Typical Thermal Resistance(Note2): 30°C/W Junction to Case
- Typical Thermal Resistance(Note2): 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                        |

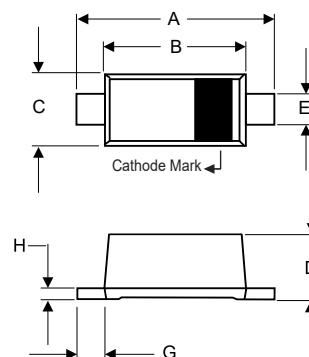
## Electrical Characteristics @ 25°C Unless Otherwise Specified

|                              |             |                                      |                                           |
|------------------------------|-------------|--------------------------------------|-------------------------------------------|
| 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)<br>0.7V(Max)<br>0.85V(Max) | $I_{FM}=2.0A$ ;<br>$T_J=25^\circ\text{C}$ |
| 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. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7a.  
2. Thermal Resistance:PC Board Mounted on 0.2\*0.2"(5\*5mm) copper pad area.

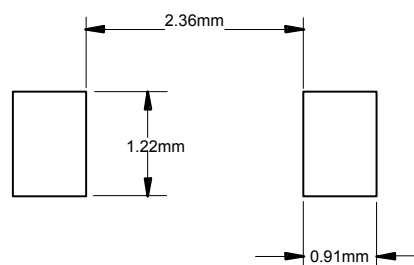
# Schottky Barrier Diodes 20 to 100 Volts

## SOD-123FL



| 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

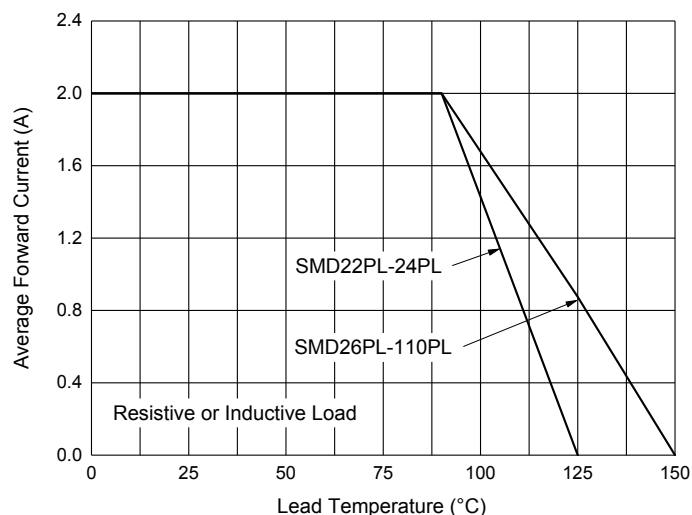


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

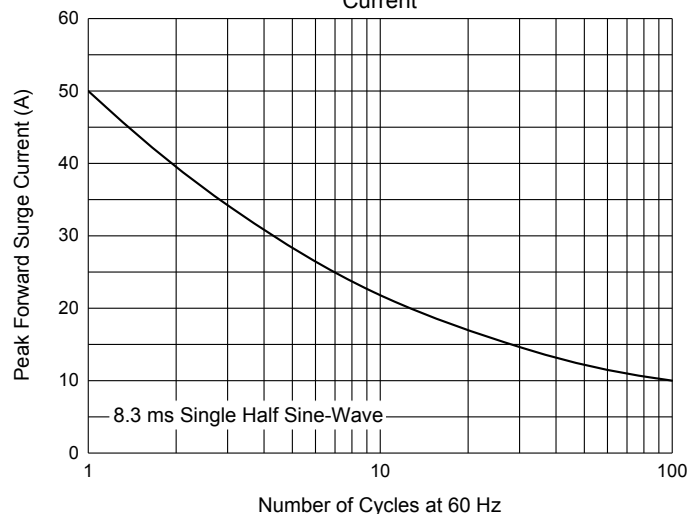


Fig. 3 - Typical Instantaneous Forward Characteristics

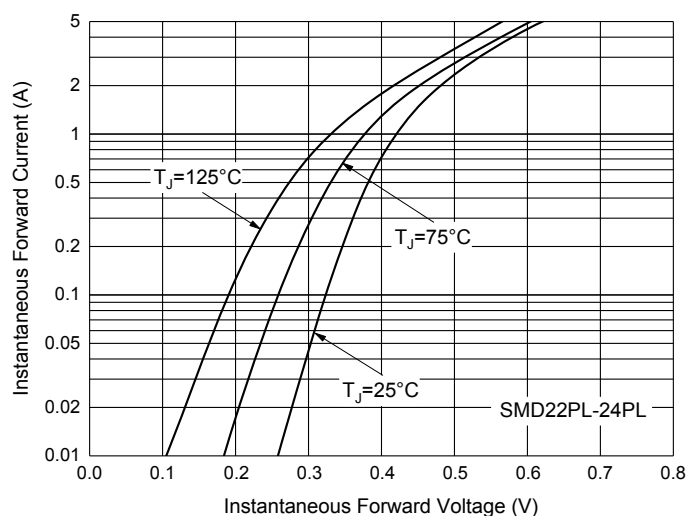


Fig. 4 - Typical Instantaneous Forward Characteristics

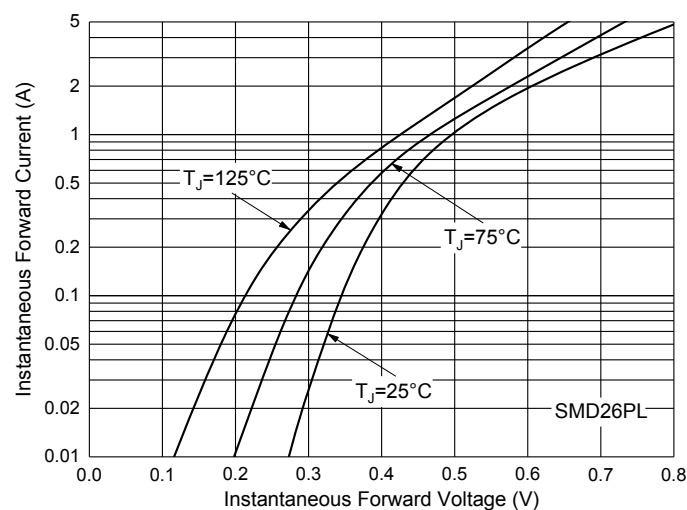


Fig. 5 - Typical Instantaneous Forward Characteristics

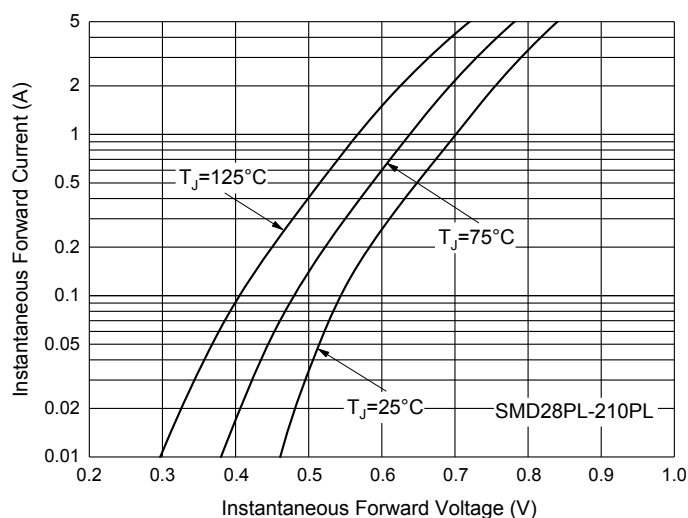
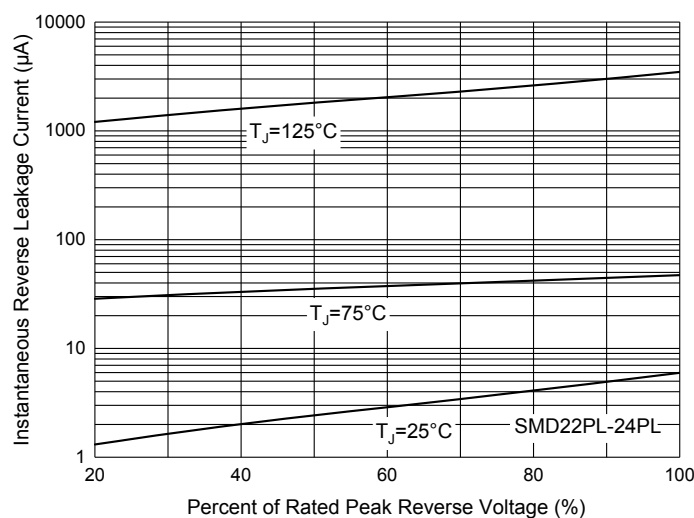


Fig. 6 - Typical Reverse Leakage Characteristics



## Curve Characteristics

Fig. 7 - Typical Reverse Leakage Characteristics

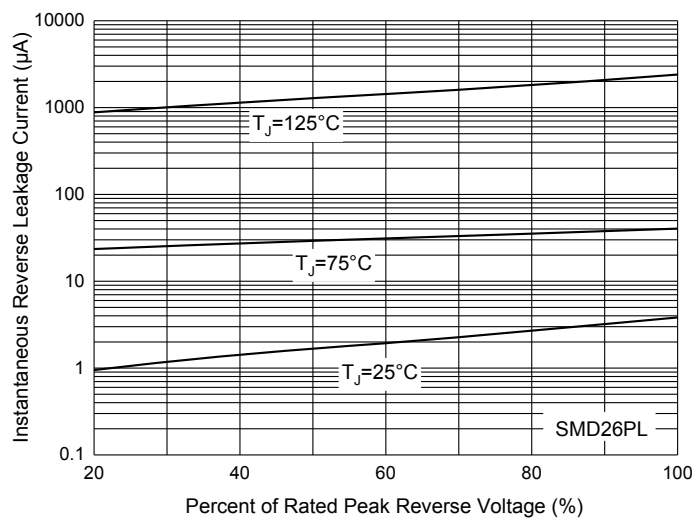
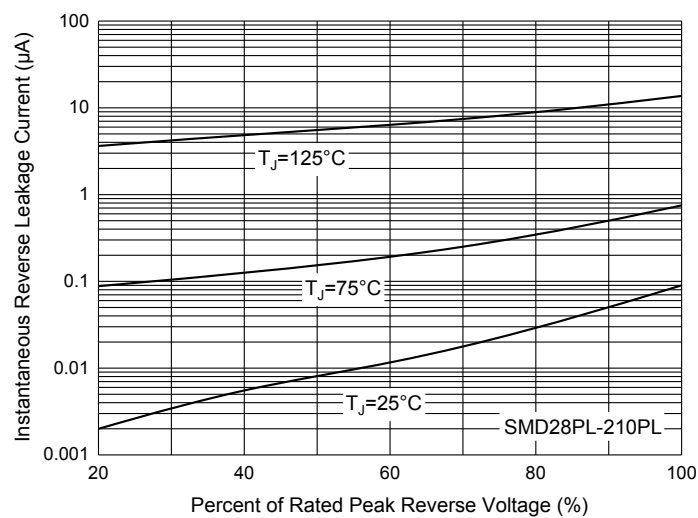


Fig. 8 - Typical Reverse Leakage Characteristics



## Ordering Information

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

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

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