

## Features

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- High Current Capability
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)
- Guardring For Overvoltage Protection.
- Silicon Epitaxial Planar Chip, Metal Silicon Junction
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1

## Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance: 6°C/W Junction to Lead(Note 2)
- Typical Thermal Resistance: 28°C/W Junction to Case(Note 3)
- Typical Thermal Resistance: 60°C/W Junction to Ambient(Note 2)

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| SMD34LHE1       | T4             | 40V                                    | 28V                 | 40V                         |

## Electrical Characteristics @ 25°C Unless Otherwise Specified

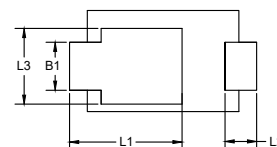
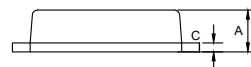
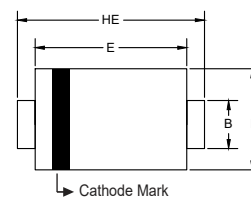
|   |             |                                     |                                 |
|---|-------------|-------------------------------------|---------------------------------|
| Average Forward Current                         | $I_{F(AV)}$ | 3.0A                                | $T_L = 125^\circ\text{C}$       |
| Peak Forward Surge Current                      | $I_{FSM}$   | 80A                                 | 8.3ms, Half Sine                |
| Instantaneous Forward Voltage                   | $V_F$       | 0.45V(Max)<br>0.41V(Typ)            | $I_{FM}=3.0A;$                  |
| DC Reverse Current at Rated DC Blocking Voltage | $I_R$       | 120 $\mu$ A(Max)<br>30 $\mu$ A(Typ) | $V_R=40V; T_J=25^\circ\text{C}$ |
| Typical Junction Capacitance                    | $C_J$       | 210pF                               | $V_R=4V, f=1\text{MHZ}$         |

### Note :

1. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.
2. The Thermal Resistance From Junction to Ambient or Lead, Mounted on P.C.B With 5x5mm Copper Pads, 2 OZ, FR4 PCB.
3. The Thermal Resistance From Junction to Case, Mounted on P.C.B With Recommended Copper Pads, 2 OZ, FR4 PCB.

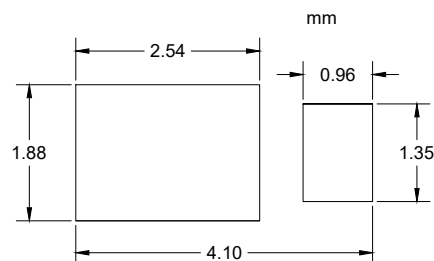
# 3 Amp Low VF Schottky Rectifier 40 Volts

## SOD-123HE1



| DIM | DIMENSIONS |       |      |      | NOTE |
|-----|------------|-------|------|------|------|
|     | INCHES     |       | MM   |      |      |
|     | MIN        | MAX   | MIN  | MAX  |      |
| A   | 0.030      | 0.035 | 0.75 | 0.90 |      |
| B   | 0.033      | 0.041 | 0.85 | 1.05 |      |
| B1  | 0.033      | 0.041 | 0.85 | 1.05 |      |
| C   | 0.004      | 0.010 | 0.10 | 0.25 |      |
| D   | 0.075      | 0.083 | 1.90 | 2.10 |      |
| E   | 0.114      | 0.122 | 2.90 | 3.10 |      |
| L1  | 0.079      | 0.096 | 2.00 | 2.45 |      |
| L2  | 0.016      | 0.033 | 0.40 | 0.85 |      |
| L3  | 0.051      | 0.067 | 1.30 | 1.70 |      |
| HE  | 0.138      | 0.154 | 3.50 | 3.90 |      |

### Suggested Solder Pad Layout



**Curve Characteristics**

Fig. 1 - Forward Current Derating Curve

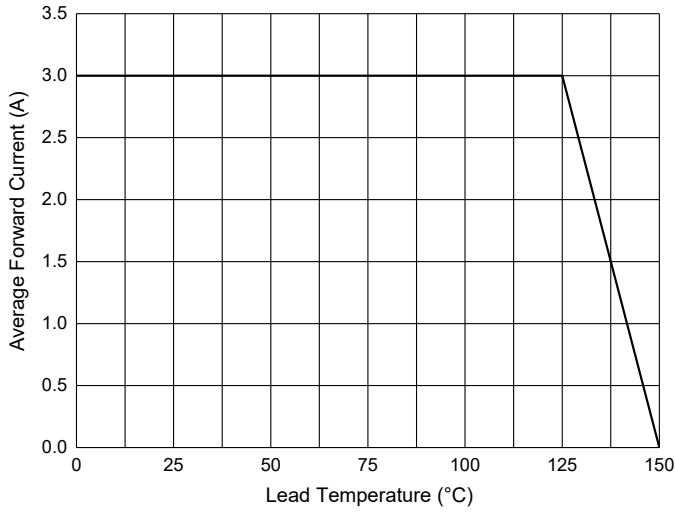


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

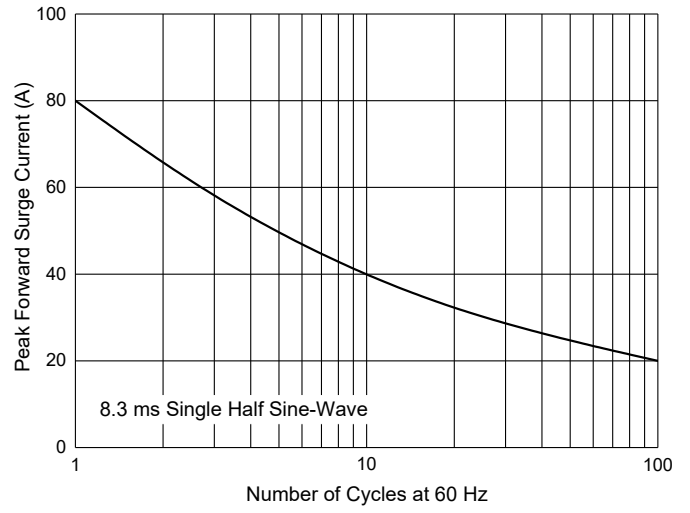


Fig. 3 - Typical Instantaneous Forward Characteristics

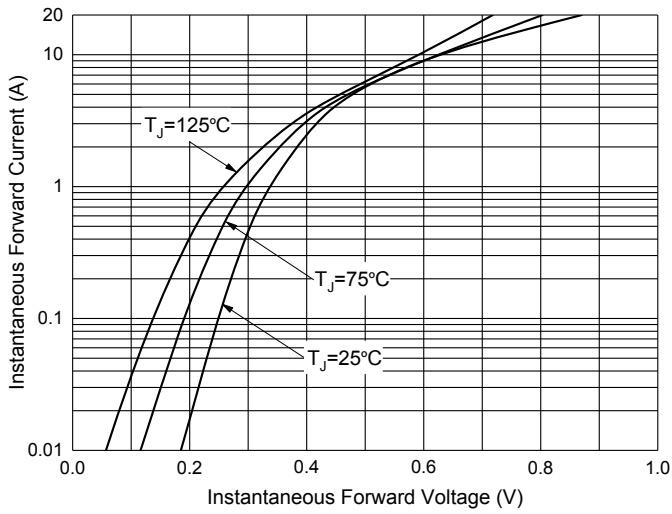
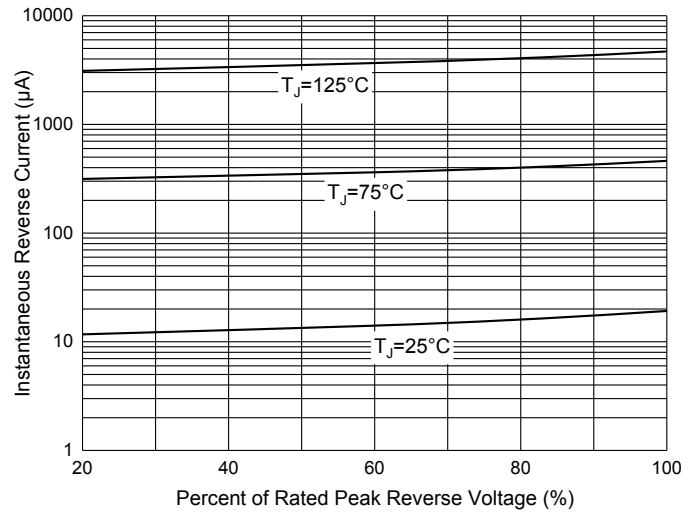


Fig. 4 - Typical Reverse Leakage Characteristics



## Ordering Information

| Device         | Packing               |
|----------------|-----------------------|
| Part Number-TP | Tape&Reel: 3Kpcs/Reel |

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

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