

## Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)
- High Current Capability
- For Surface Mount Application
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Halogen Free Available Upon Request By Adding Suffix "-HF"

## Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Maximum Thermal Resistance: 16°C/W Junction to Lead
- Maximum Thermal Resistance: 55°C/W Junction to Ambient

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|----------------------------------------|---------------------|-----------------------------|
| SK52L           | SK52           | 20V                                    | 14V                 | 20V                         |
| SK53L           | SK53           | 30V                                    | 21V                 | 30V                         |
| SK54L           | SK54           | 40V                                    | 28V                 | 40V                         |
| SK55L           | SK55           | 50V                                    | 35V                 | 50V                         |
| SK56L           | SK56           | 60V                                    | 42V                 | 60V                         |
| SK58L           | SK58           | 80V                                    | 56V                 | 80V                         |
| SK510L          | SK510          | 100V                                   | 70V                 | 100V                        |

## Electrical Characteristics @ 25°C Unless Otherwise Specified

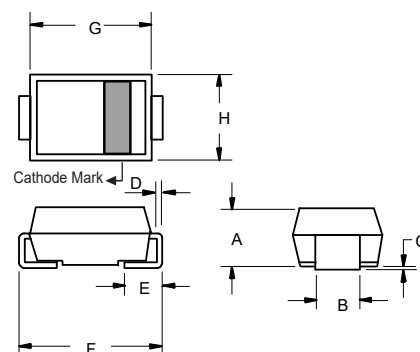
|                                                                               |             |                         |                                                     |
|-------------------------------------------------------------------------------|-------------|-------------------------|-----------------------------------------------------|
| Average Forward Current                                                       | $I_{F(AV)}$ | 5.0A                    | $T_C=120^\circ\text{C}$                             |
| Peak Forward Surge Current                                                    | $I_{FSM}$   | 100A                    | 8.3ms, Half Sine                                    |
| Maximum Instantaneous Forward Voltage<br>SK52L~54L<br>SK55L~56L<br>SK58L~510L | $V_F$       | 0.55V<br>0.75V<br>0.85V | $I_{FM}=5.0A$ ;<br>$T_J=25^\circ\text{C}$           |
| Maximum DC Reverse Current at Rated DC Blocking Voltage                       | $I_R$       | 0.1mA<br>10mA           | $T_J=25^\circ\text{C}$ ;<br>$T_J=100^\circ\text{C}$ |
| Typical Junction Capacitance                                                  | $C_J$       | 200pF                   | Measured at 1.0MHz,<br>$V_R=4.0V$                   |

\*Pulse Test: Pulse Width 200  $\mu\text{sec}$ , Duty Cycle 2%

Note: 1. High Temperature Solder Exemptions Applied, See EU Directive Annex 7a.

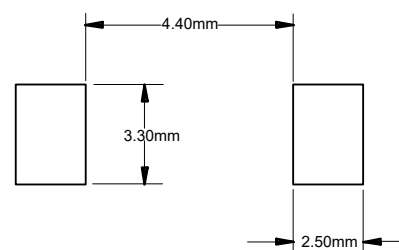
# 5 Amp Schottky Rectifier 20 to 100 Volts

## SMC (DO-214AB)



| DIMENSIONS |        |       |       |       |      |
|------------|--------|-------|-------|-------|------|
| DIM        | INCHES |       | MM    |       | NOTE |
|            | MIN    | MAX   | MIN   | MAX   |      |
| A          | 0.079  | 0.103 | 2.00  | 2.62  |      |
| B          | 0.108  | 0.128 | 2.75  | 3.25  |      |
| C          | 0.002  | 0.008 | 0.051 | 0.203 |      |
| D          | 0.006  | 0.012 | 0.152 | 0.305 |      |
| E          | 0.030  | 0.060 | 0.76  | 1.52  |      |
| F          | 0.305  | 0.320 | 7.75  | 8.13  |      |
| G          | 0.260  | 0.280 | 6.60  | 7.11  |      |
| H          | 0.220  | 0.245 | 5.59  | 6.22  |      |

## Suggested Solder Pad Layout



## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

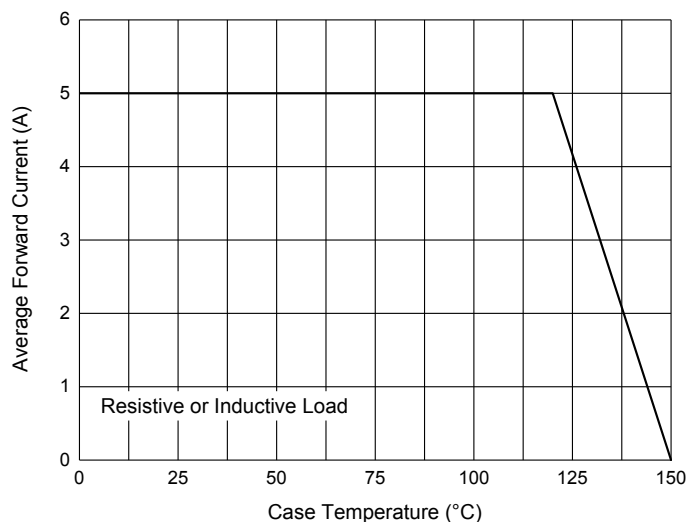


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

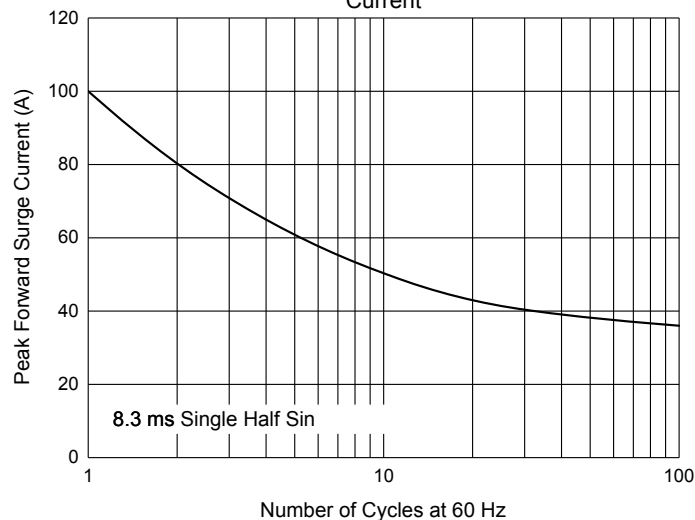


Fig. 3 - Typical Instantaneous Forward Characteristics

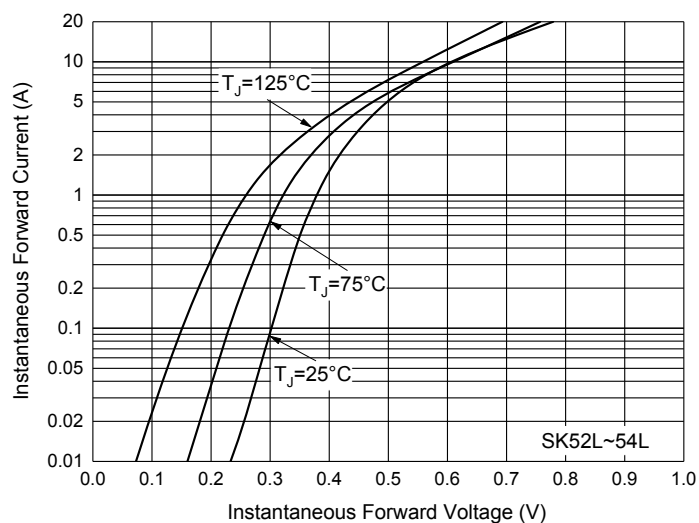


Fig. 4 - Typical Instantaneous Forward Characteristics

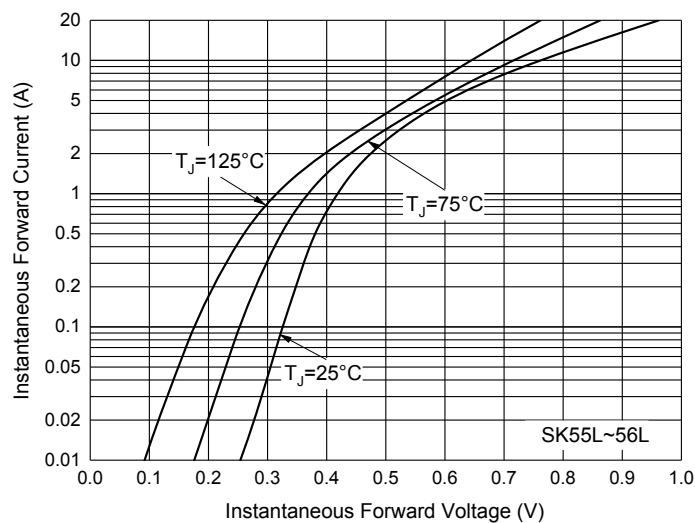


Fig. 5 - Typical Instantaneous Forward Characteristics

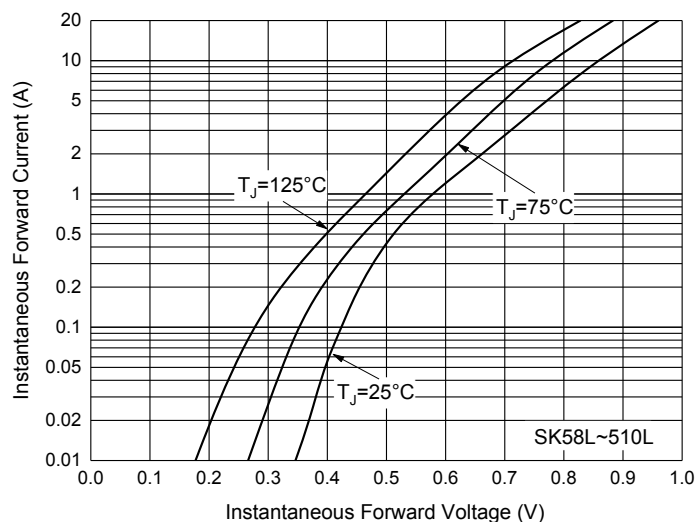
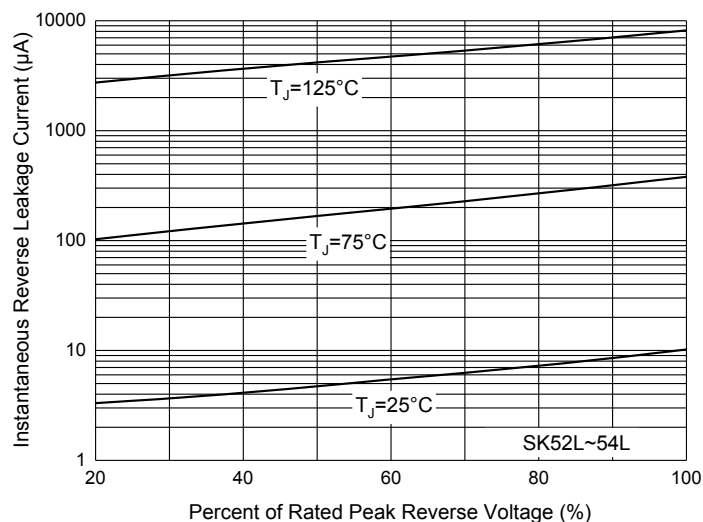


Fig. 6 - Typical Reverse Leakage Characteristics



## Curve Characteristics

Fig. 7 - Typical Reverse Leakage Characteristics

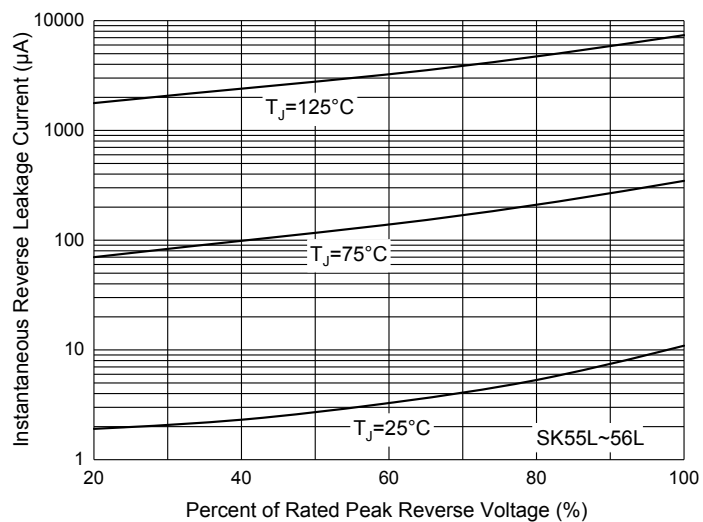
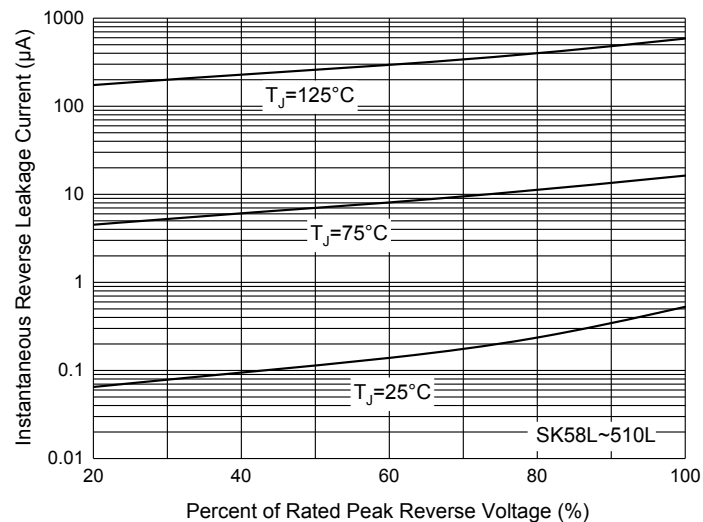


Fig. 8 - Typical Reverse Leakage Characteristics



## Ordering Information

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

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

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