

## Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- High Current Capability With Low Forward Voltage
- For Surface Mount Applications
- Extremely Low Thermal Resistance
- Easy Pick And Place
- Halogen Free. "Green" Device (Note 2)

## 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

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|----------------------------------------|---------------------|-----------------------------|
| SK52A-L         | SK52A          | 20V                                    | 14V                 | 20V                         |
| SK53A-L         | SK53A          | 30V                                    | 21V                 | 30V                         |
| SK54A-L         | SK54A          | 40V                                    | 28V                 | 40V                         |
| SK55A-L         | SK55A          | 50V                                    | 35V                 | 50V                         |
| SK56A-L         | SK56A          | 60V                                    | 42V                 | 60V                         |
| SK58A-L         | SK58A          | 80V                                    | 56V                 | 80V                         |
| SK510A-L        | SK510A         | 100V                                   | 70V                 | 100V                        |

## Electrical Characteristics @ 25°C Unless Otherwise Specified

|                                                                               |             |                         |                                                     |
|-------------------------------------------------------------------------------|-------------|-------------------------|-----------------------------------------------------|
| Average Forward Current                                                       | $I_{F(AV)}$ | 5.0A                    | $T_A=120^\circ\text{C}$                             |
| Peak Forward Surge Current                                                    | $I_{FSM}$   | 100A                    | 8.3ms, Half Sine                                    |
| Maximum Instantaneous Forward Voltage<br>SK52A-54A<br>SK55A-56A<br>SK58A-510A | $V_F$       | 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, $V_R=4.0V$                      |

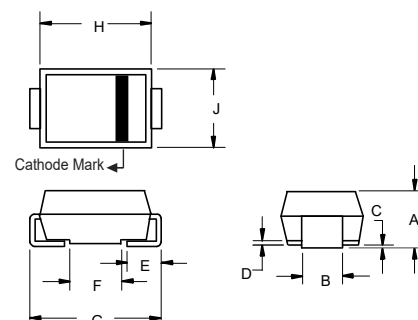
\*Pulse test: Pulse width 200  $\mu\text{sec}$ , Duty cycle 2%

Note :

1. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.
2. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

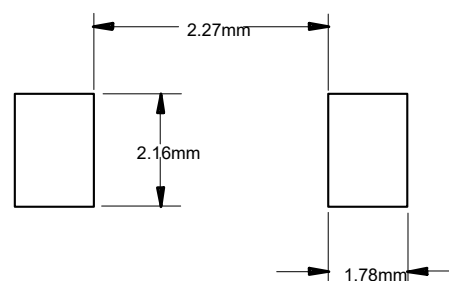
# 5 Amp Schottky Rectifier 20 to 100 Volts

## SMA (DO-214AC)



| DIMENSIONS |        |       |       |       |      |
|------------|--------|-------|-------|-------|------|
| DIM        | INCHES |       | MM    |       | NOTE |
|            | MIN    | MAX   | MIN   | MAX   |      |
| A          | 0.075  | 0.096 | 1.90  | 2.44  |      |
| B          | 0.050  | 0.064 | 1.27  | 1.63  |      |
| C          | 0.002  | 0.008 | 0.051 | 0.203 |      |
| D          | ---    | 0.020 | ---   | 0.51  |      |
| E          | 0.030  | 0.060 | 0.76  | 1.52  |      |
| F          | 0.065  | 0.091 | 1.65  | 2.32  |      |
| G          | 0.189  | 0.220 | 4.80  | 5.59  |      |
| H          | 0.157  | 0.187 | 4.00  | 4.75  |      |
| J          | 0.090  | 0.115 | 2.25  | 2.92  |      |

## SUGGESTED SOLDER PAD LAYOUT



## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

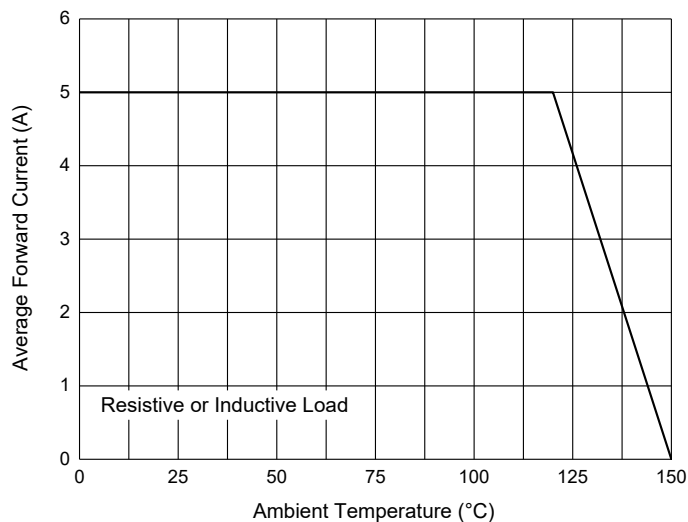


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

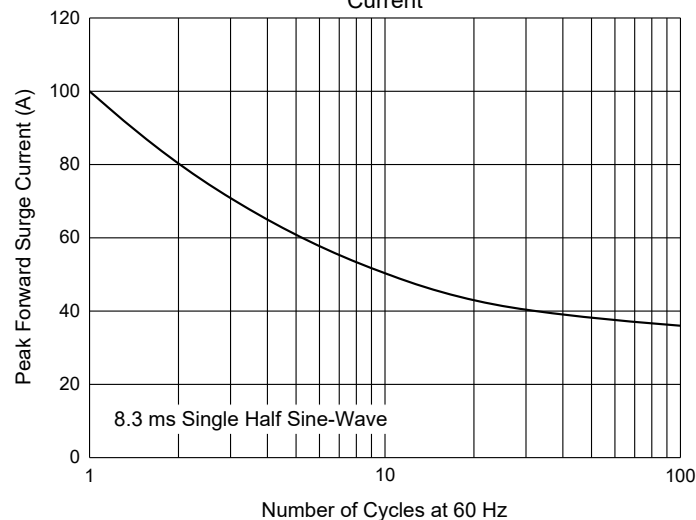


Fig. 3 - Typical Instantaneous Forward Characteristics

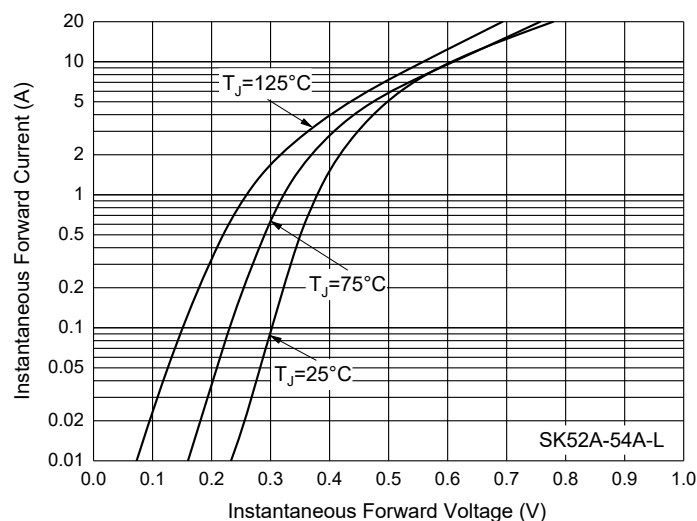


Fig. 4 - Typical Instantaneous Forward Characteristics

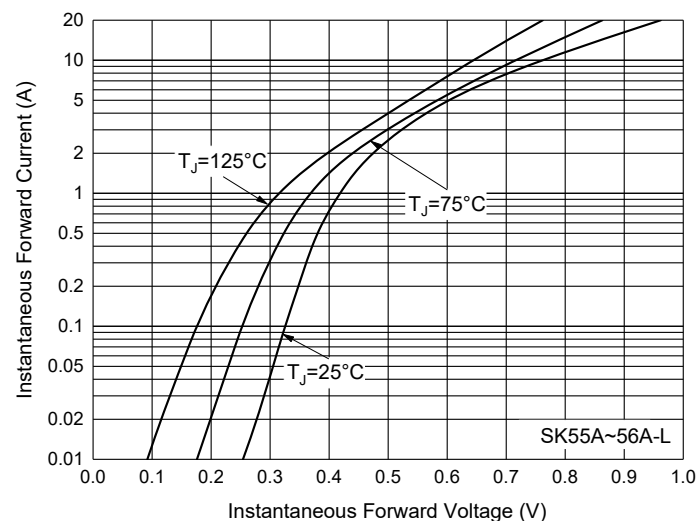


Fig. 5 - Typical Instantaneous Forward Characteristics

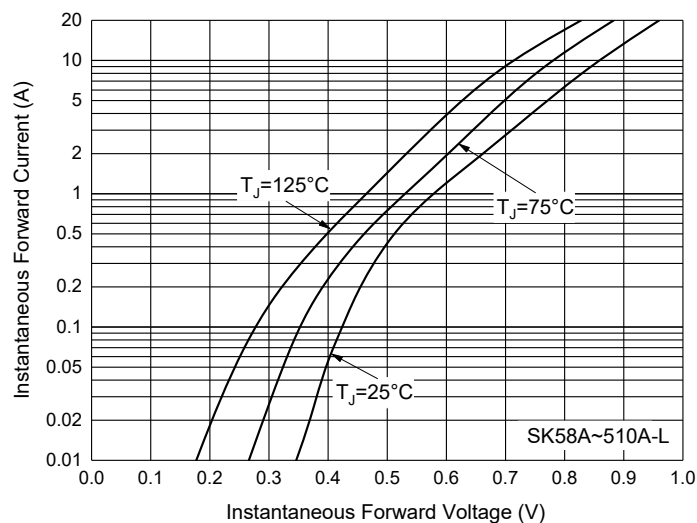
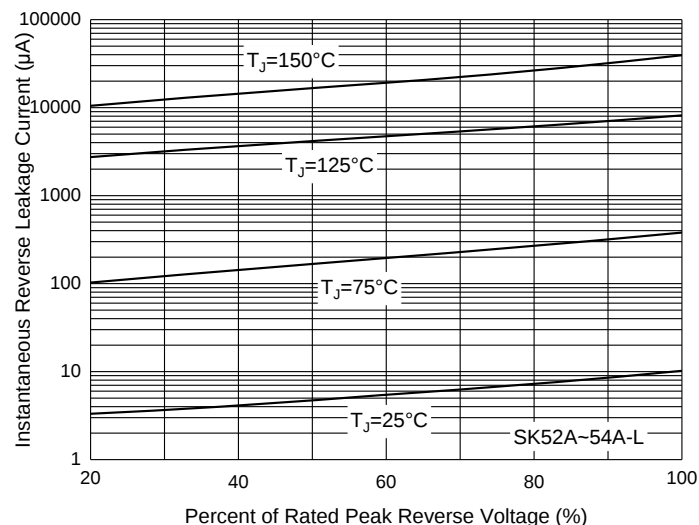


Fig. 6 - Typical Reverse Leakage Characteristics



## Curve Characteristics

Fig. 7 - Typical Reverse Leakage Characteristics

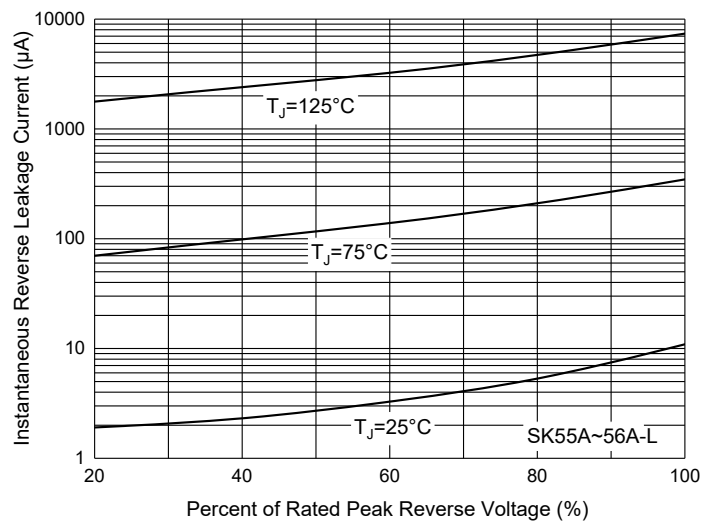
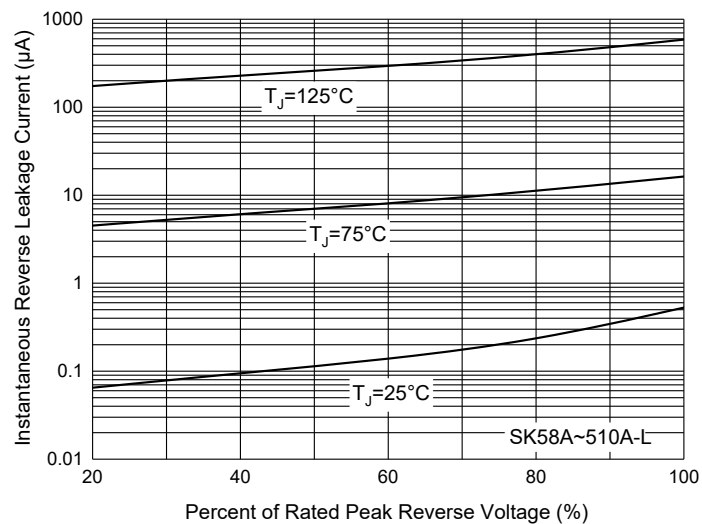


Fig. 8 - Typical Reverse Leakage Characteristics



## Ordering Information

| Device               | Packing               |
|----------------------|-----------------------|
| SK52A-LTP~SK510A-LTP | Tape&Reel: 5Kpcs/Reel |

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