



Micro Commercial Components



Micro Commercial Components  
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# SK52A-L THRU SK510A-L

## Features

- 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
- High Current Capability With Low Forward Voltage
- For Surface Mount Applications
- Extremely Low Thermal Resistance
- Easy Pick And Place
- Halogen free available upon request by adding suffix "-HF"

## Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -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

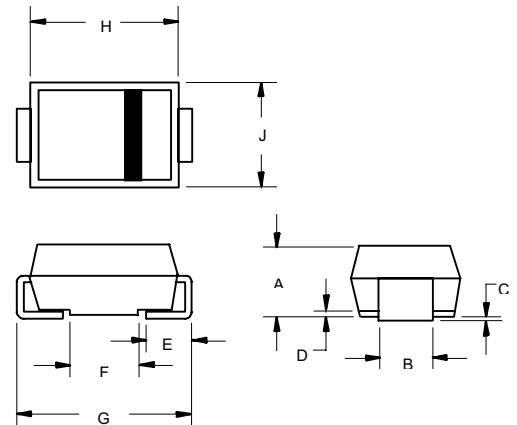
|   |             |                      |   |
|---|-------------|----------------------|---|
| Average Forward Current                                 | $I_{F(AV)}$ | 5.0A                 | $T_A = 120^\circ\text{C}$                             |
| Peak Forward Surge Current                              | $I_{FSM}$   | 100A                 | 8.3ms, half sine                                      |
| Maximum Instantaneous Forward Voltage                   | $V_F$       | .55V<br>.75V<br>.85V | $I_{FM} = 5.0A;$<br>$T_J = 25^\circ\text{C}^*$        |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_R$       | 1mA<br>20mA          | $T_J = 25^\circ\text{C}$<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 Exemptions Applied, see EU Directive Annex 7.

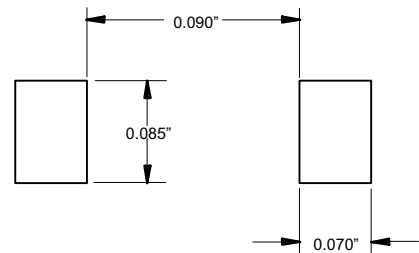
## 5 Amp Schottky Rectifier 20 to 100 Volts

### DO-214AC (SMA) (LEAD FRAME)



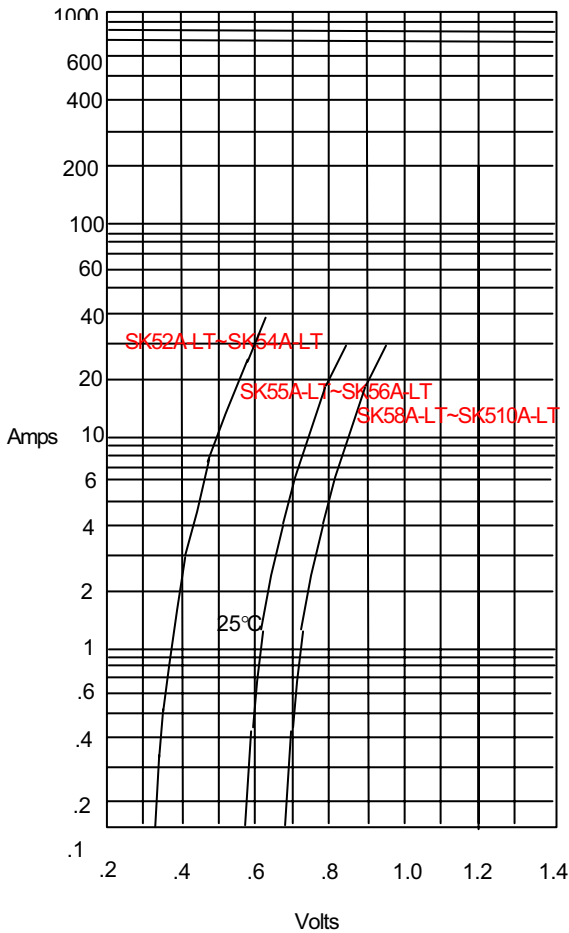
| DIM | INCHES |      | MM   |      | NOTE |
|-----|--------|------|------|------|------|
|     | MIN    | MAX  | MIN  | MAX  |      |
| A   | .079   | .096 | 2.00 | 2.44 |      |
| B   | .050   | .064 | 1.27 | 1.63 |      |
| C   | .002   | .008 | .05  | .20  |      |
| D   | —      | .02  | —    | .51  |      |
| E   | .030   | .060 | .76  | 1.52 |      |
| F   | .065   | .091 | 1.65 | 2.32 |      |
| G   | .189   | .220 | 4.80 | 5.59 |      |
| H   | .157   | .181 | 4.00 | 4.60 |      |
| J   | .090   | .115 | 2.25 | 2.92 |      |

### SUGGESTED SOLDER PAD LAYOUT



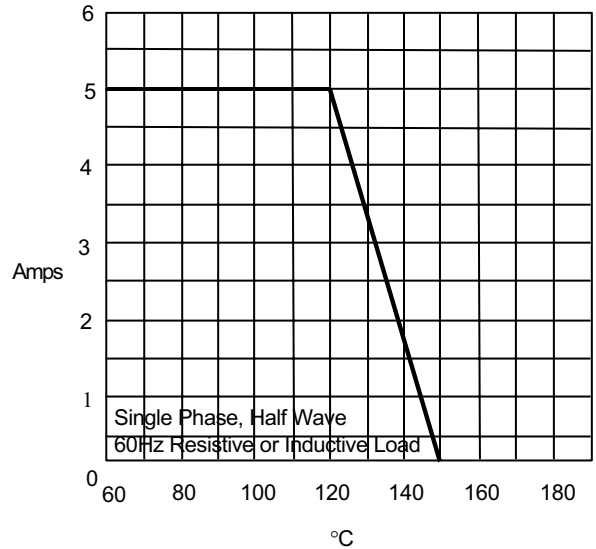
# SK52A-L thru SK510A-L

Figure 1  
Typical Forward Characteristics



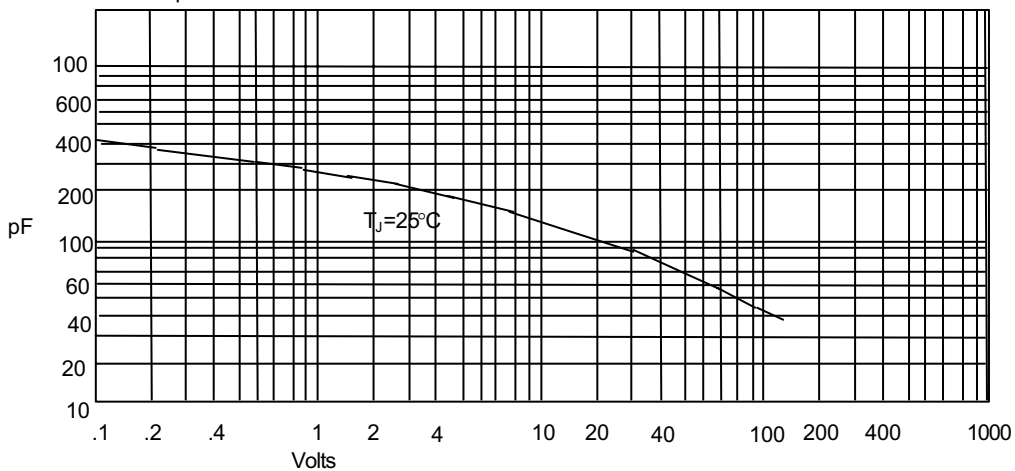
Instantaneous Forward Current - Amperes versus Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



Average Forward Rectified Current - Amperes versus Ambient Temperature - °C

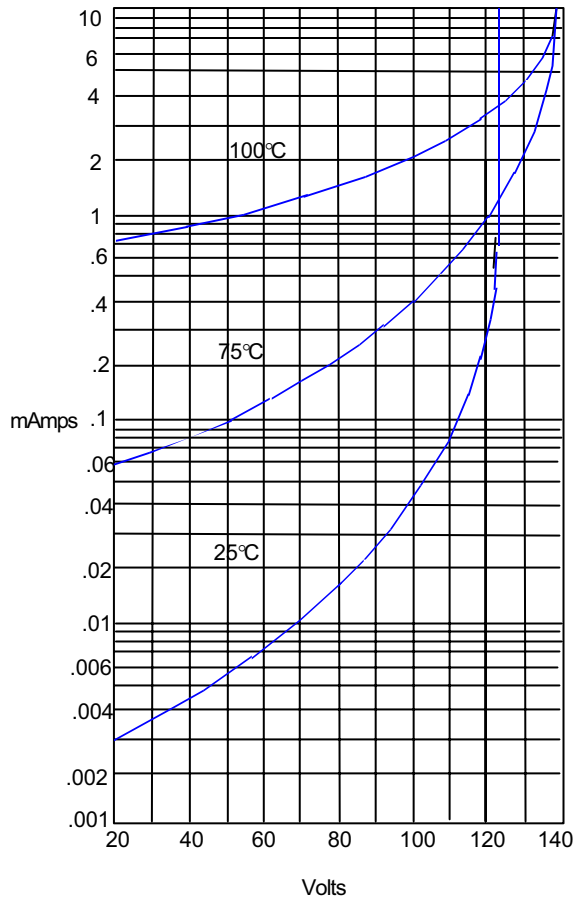
Figure 3  
Junction Capacitance



Junction Capacitance - pF versus Reverse Voltage - Volts

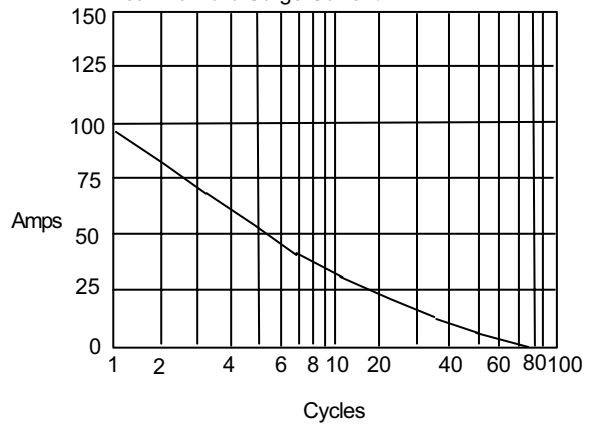
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Figure 4  
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - MicroAmperes *versus*  
Percent Of Rated Peak Reverse Voltage - Volts

Figure 5  
Peak Forward Surge Current



Peak Forward Surge Current - Amperes *versus*  
Number Of Cycles At 60Hz - Cycles



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### Ordering Information :

| Device         | Packing                |
|----------------|------------------------|
| Part Number-TP | Tape&Reel: 5 Kpcs/Reel |

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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