



Micro Commercial Components

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SK52B-LT THRU SK510B-LT

Features

- High Current Capability
- For Surface Mount Applications
- Higher Temp Soldering : 260°C for 10 Seconds At Terminals
- Available on Tape and Reel

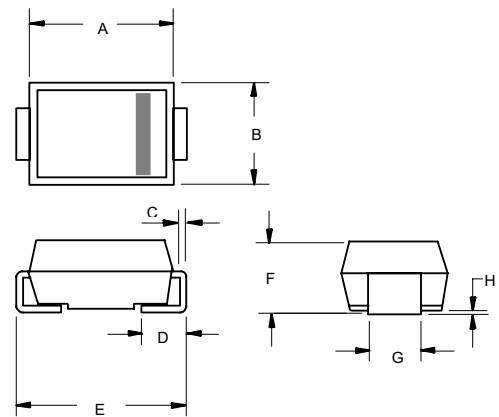
5 Amp Schottky Rectifier 20 to 100 Volts

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
 55°C/W Junction To Ambient

| MCC Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------|----------------|--|---------------------|-----------------------------|
| SK52B-LT | SK52B | 20V | 14V | 20V |
| SK53B-LT | SK53B | 30V | 21V | 30V |
| SK54B-LT | SK54B | 40V | 28V | 40V |
| SK55B-LT | SK55B | 50V | 35V | 50V |
| SK56B-LT | SK56B | 60V | 42V | 60V |
| SK58B-LT | SK58B | 80V | 56V | 80V |
| SK510B-LT | SK510B | 100V | 70V | 100V |

DO-214AA (SMB) (LEAD FRAME)

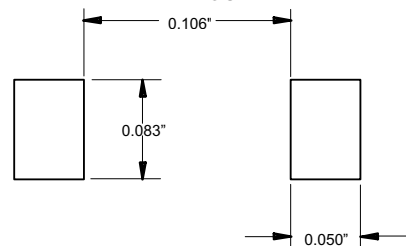


Electrical Characteristics @ 25°C Unless Otherwise Specified

| Parameter | Symbol | Value | Conditions |
|---|-------------|----------------------|---|
| 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 .75V .85V | $I_{FM} = 5.0\text{A};$ $T_J = 25^\circ\text{C}$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 1.0mA 20mA | $T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$ |
| Typical Junction Capacitance | C_J | 200pF | Measured at 1.0MHz, $V_R=4.0\text{V}$ |

| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|------|------|-------|------|
| | INCHES | | MM | | |
| A | .160 | .185 | 4.06 | 4.70 | |
| B | .130 | .155 | 3.30 | 3.94 | |
| C | .006 | .012 | 0.15 | 0.31 | |
| D | .030 | .060 | 0.76 | 1.52 | |
| E | .200 | .220 | 5.08 | 5.59 | |
| F | .079 | .096 | 2.00 | 2.44 | |
| G | .075 | .087 | 1.91 | 2.21 | |
| H | .002 | .008 | 0.05 | 0.203 | |

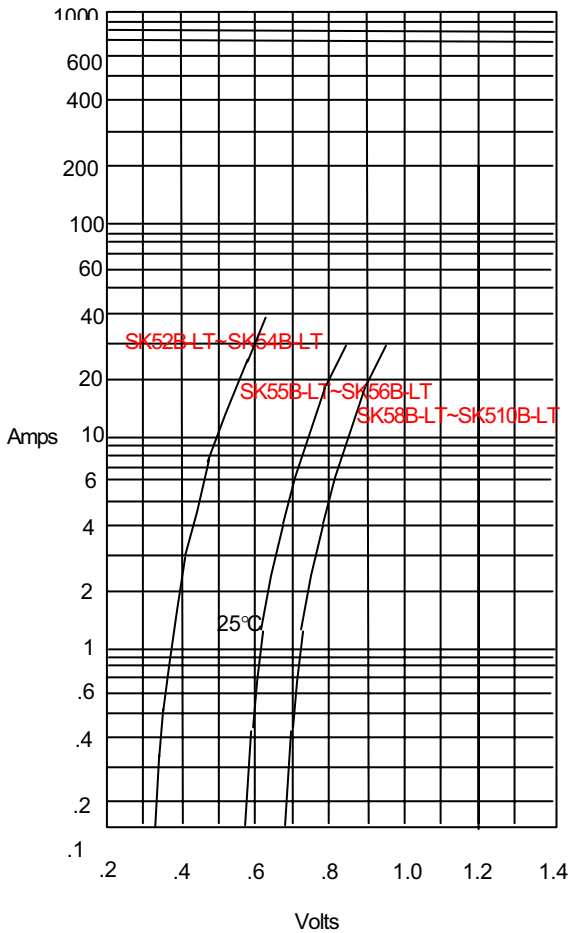
SUGGESTED SOLDER PAD LAYOUT



*Pulse test: Pulse width 200 μsec , Duty cycle 2%

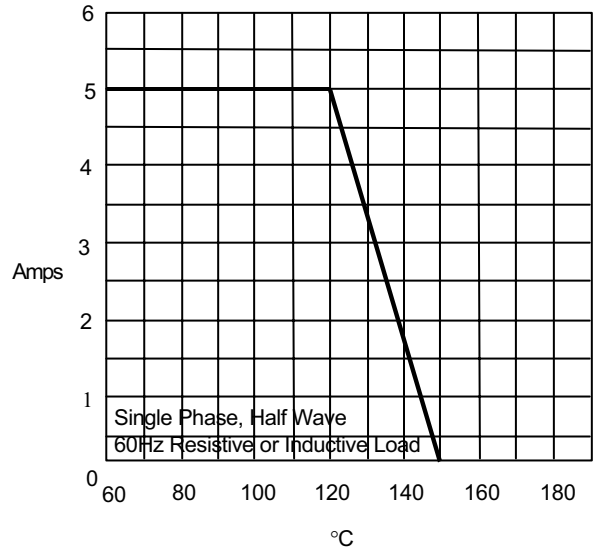
SK52B-LT thru SK510B-LT

Figure 1
Typical Forward Characteristics



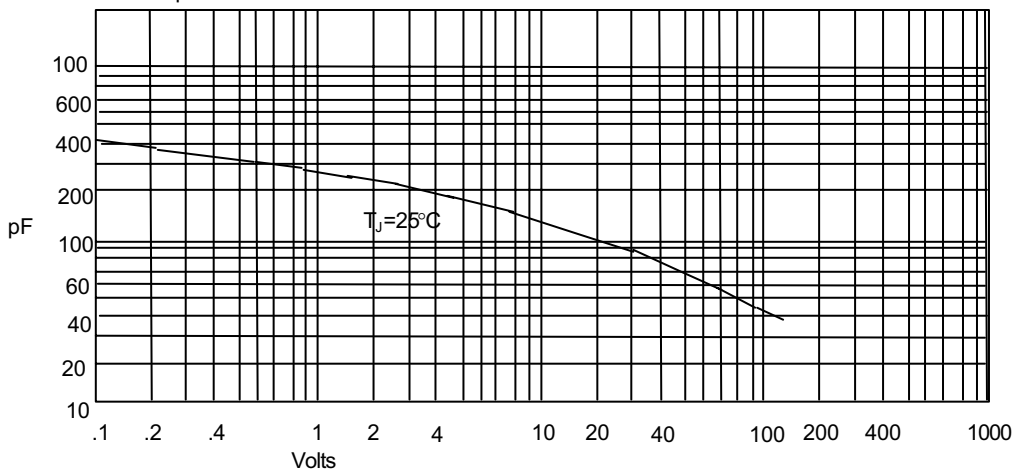
Instantaneous Forward Current - Amperes versus
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



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

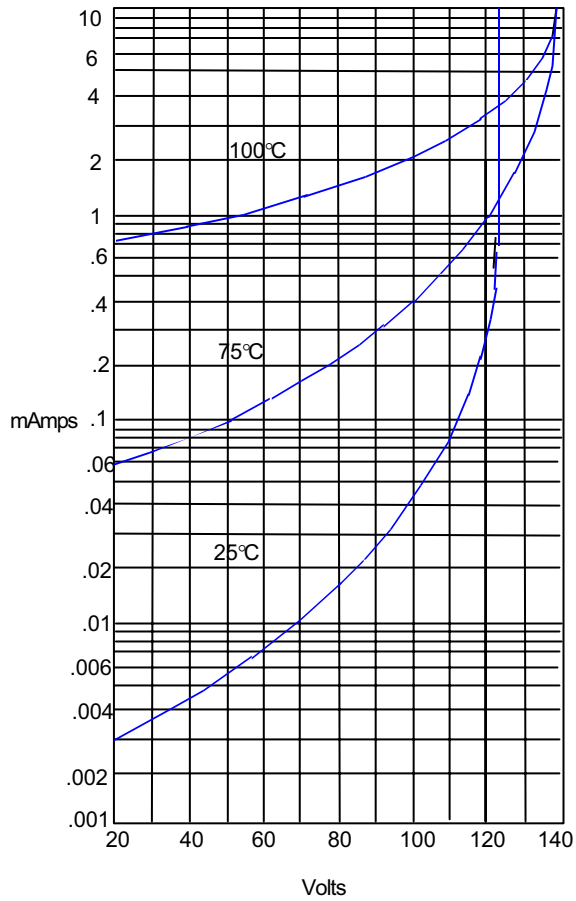
Figure 3
Junction Capacitance



Junction Capacitance - pF versus
Reverse Voltage - Volts

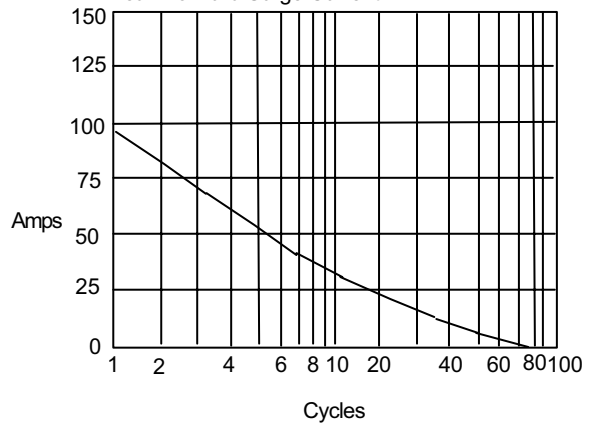
SK52B-LT thru SK510B-LT

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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