



# THE DATASHEET OF SK510B-LTP





Micro Commercial Components  
 20736 Marilla Street Chatsworth  
 CA 91311  
 Phone: (818) 701-4933  
 Fax: (818) 701-4939

# SK52B-L THRU SK520B-L

## 5 Amp Schottky Rectifier 20 to 200 Volts

### Features

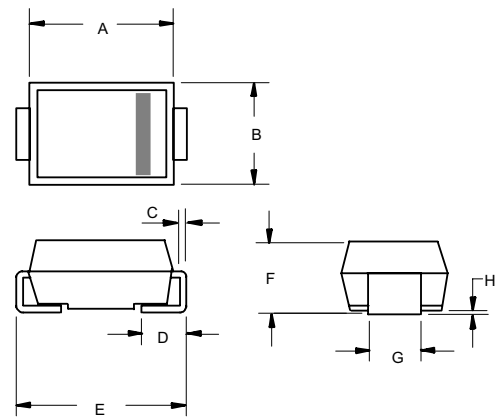
- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)
- High Current Capability
- For Surface Mount Applications
- Higher Temp Soldering : 260°C for 10 Seconds At Terminals
- Available on Tape and Reel
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- 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  
55°C/W Junction To Ambient

MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SK52B-L	SK52B	20V	14V	20V
SK53B-L	SK53B	30V	21V	30V
SK54B-L	SK54B	40V	28V	40V
SK55B-L	SK55B	50V	35V	50V
SK56B-L	SK56B	60V	42V	60V
SK58B-L	SK58B	80V	56V	80V
SK510B-L	SK510B	100V	70V	100V
SK5150B-L	SK5150	150V	105V	150V
SK520B-L	SK520B	200V	140V	200V

### DO-214AA (SMB) (LEAD FRAME)

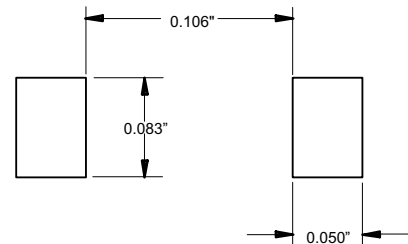


DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.160	.185	4.06	4.70	
B	.130	.155	3.30	3.94	
C	.006	.012	0.15	0.31	
D	.030	.060	0.76	1.52	
E	.200	.220	5.08	5.59	
F	.079	.096	2.00	2.44	
G	.075	.087	1.91	2.21	
H	.002	.008	0.05	0.203	

### Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	5.0A	$T_C = 120^\circ C$
Peak Forward Surge Current	$I_{FSM}$	100A	8.3ms, half sine
Maximum Instantaneous Forward Voltage SK52B-L~54B-L SK55B-L~56B-L SK58B-L~510B-L SK5150B-L SK520B-L	$V_F$	.55V .75V .85V .87V .90V	$I_{FM} = 5.0A;$ $T_J = 25^\circ C$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	1.0mA 20mA	$T_J = 25^\circ C$ $T_J = 100^\circ C$
Typical Junction Capacitance	$C_J$	200pF	Measured at 1.0MHz, $V_R=4.0V$

### SUGGESTED SOLDER PAD LAYOUT

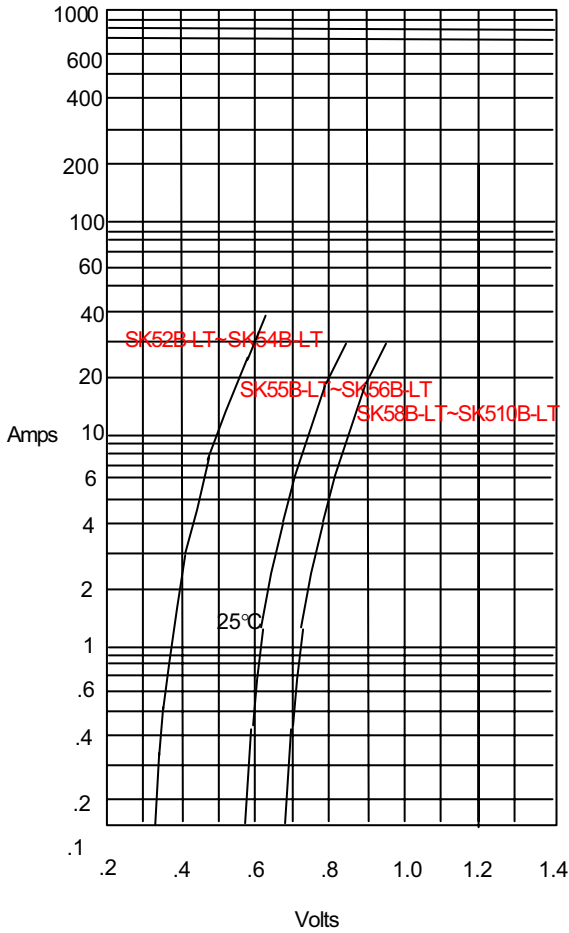


\*Pulse test: Pulse width 200  $\mu$ sec, Duty cycle 2%

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

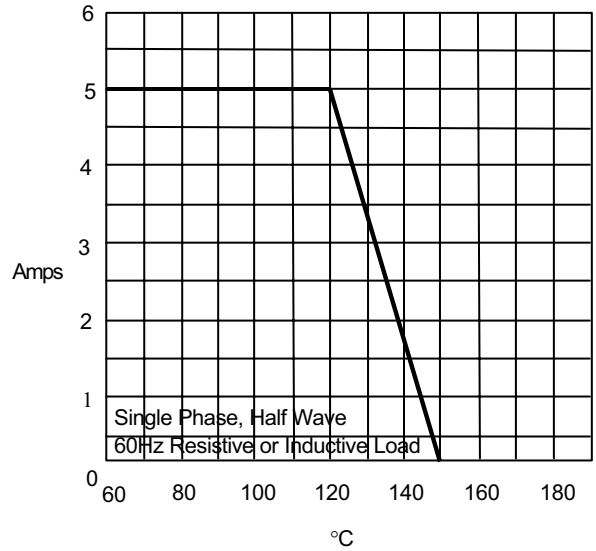
# SK52B-L thru SK520B-L

Figure 1  
Typical Forward Characteristics



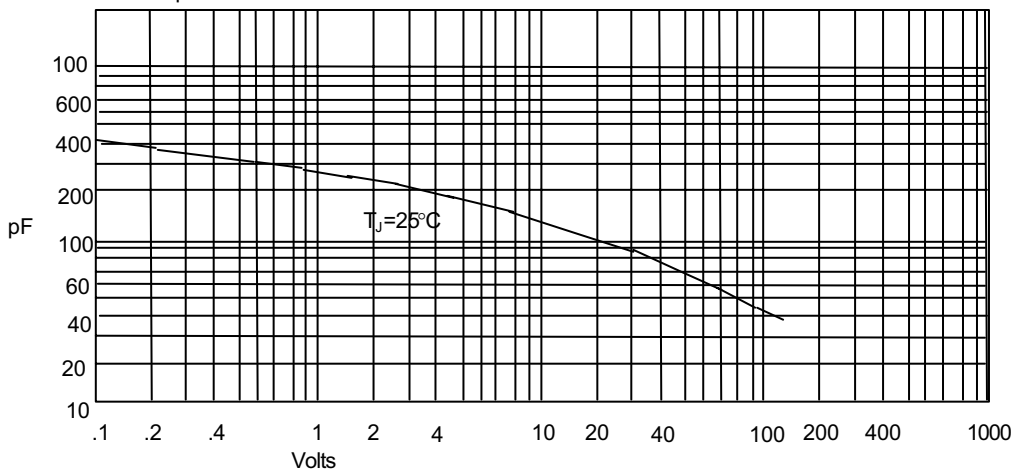
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



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

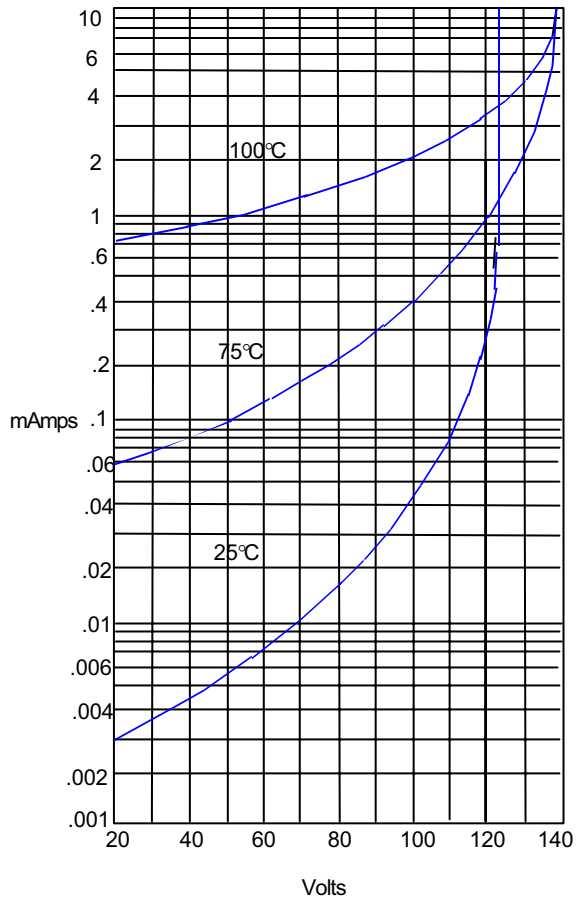
Figure 3  
Junction Capacitance



Junction Capacitance - pF versus  
Reverse Voltage - Volts

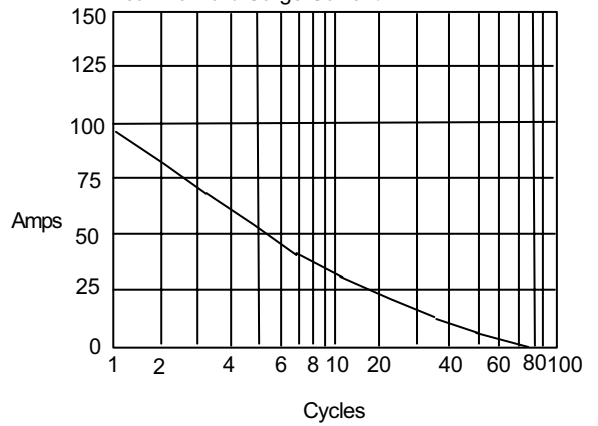
# SK52B-L thru SK520B-L

Figure 4  
Typical Reverse Characteristics



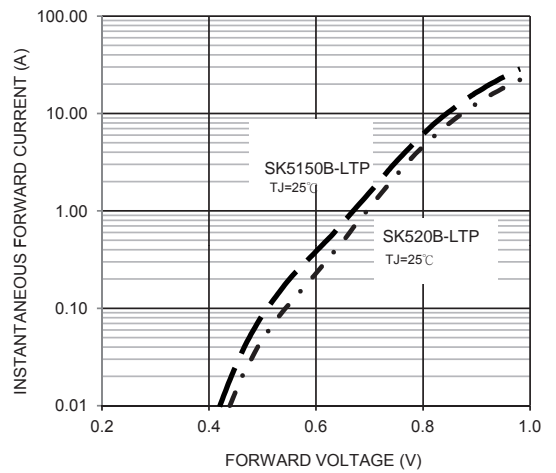
Instantaneous Reverse Leakage Current - MicroAmperes *versus* Percent Of Rated Peak Reverse Voltage - Volts

Figure 5  
Peak Forward Surge Current



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

FIG. 6-TYPICAL FORWARD CHARACTERISTICS





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### Ordering Information :

Device	Packing
SK52B-LTP~SK520B-LTP	Tape&Reel: 3Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. SK52B-LTP-HF-SK520B-LTP-HF

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