



ZIBO MICRO COMMERCIAL  
COMPONENTS CORP.



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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

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

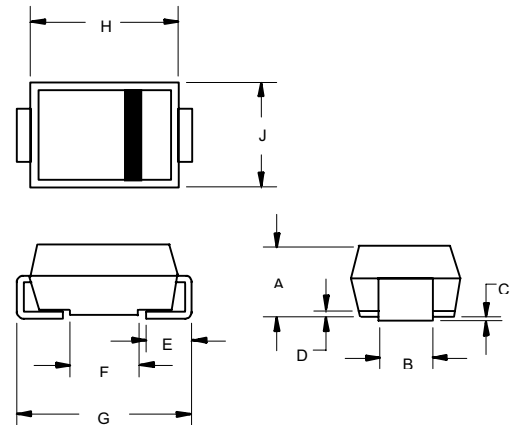
Average Forward Current	$I_{F(AV)}$	5.0A	$T_A = 120^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	100A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	$V_F$	.55V .75V .85V	$I_{FM} = 5.0A;$ $T_J = 25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	1mA 20mA	$T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$
Typical Junction Capacitance	$C_J$	200pF	Measured at 1.0MHz, $V_R=4.0V$

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

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

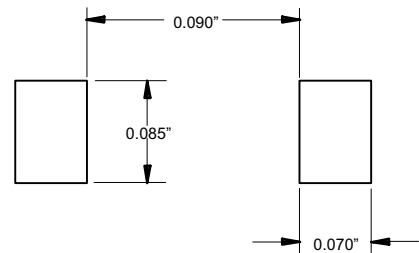
## 5 Amp Schottky Rectifier 20 to 100 Volts

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



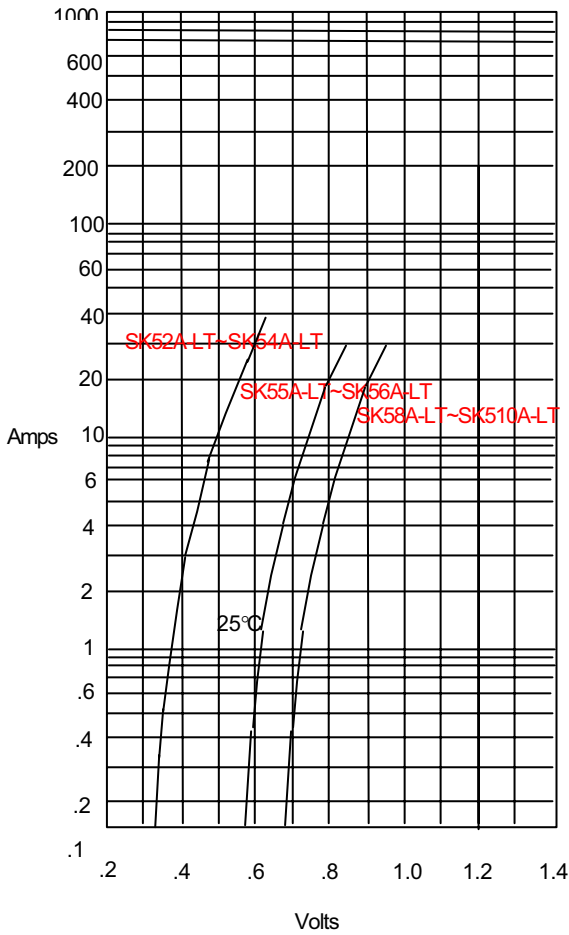
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.079	.096	2.00	2.44	
B	.050	.064	1.27	1.63	
C	.002	.008	.05	.20	
D	—	.02	—	.51	
E	.030	.060	.76	1.52	
F	.065	.091	1.65	2.32	
G	.189	.220	4.80	5.59	
H	.157	.181	4.00	4.60	
J	.090	.115	2.25	2.92	

### SUGGESTED SOLDER PAD LAYOUT



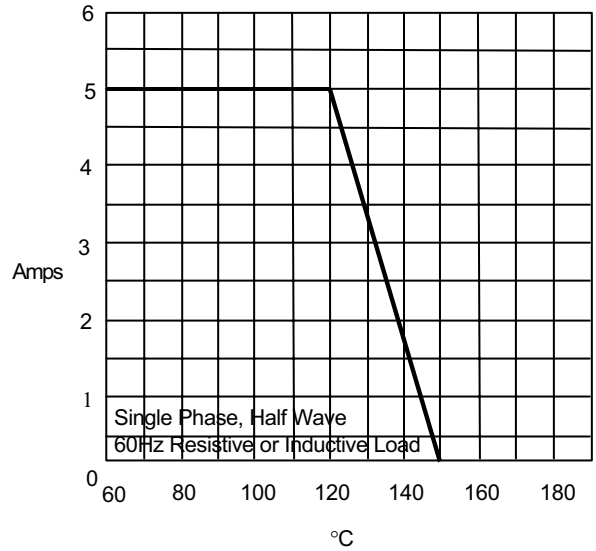
# SK52A-L thru SK510A-L

Figure 1  
 Typical Forward Characteristics



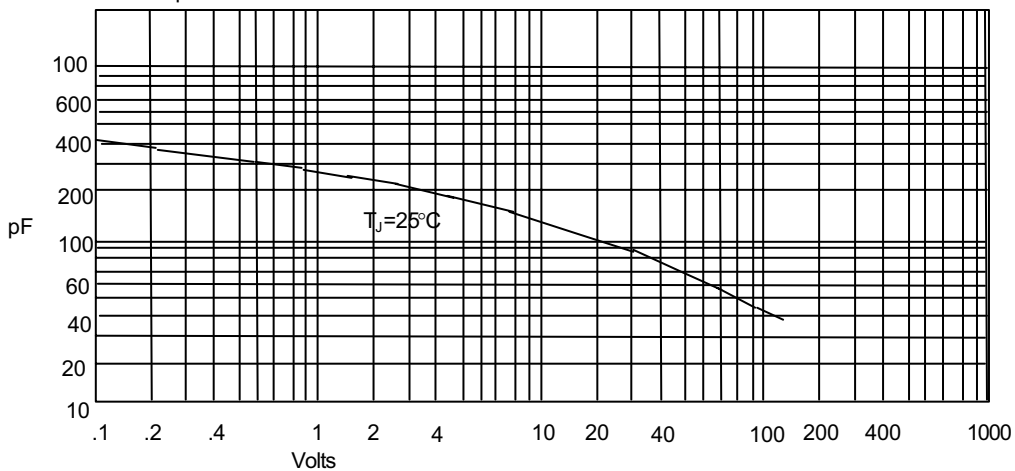
Instantaneous Forward Current - Amperes versus  
 Instantaneous Forward Voltage - Volts

Figure 2  
 Forward Derating Curve



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

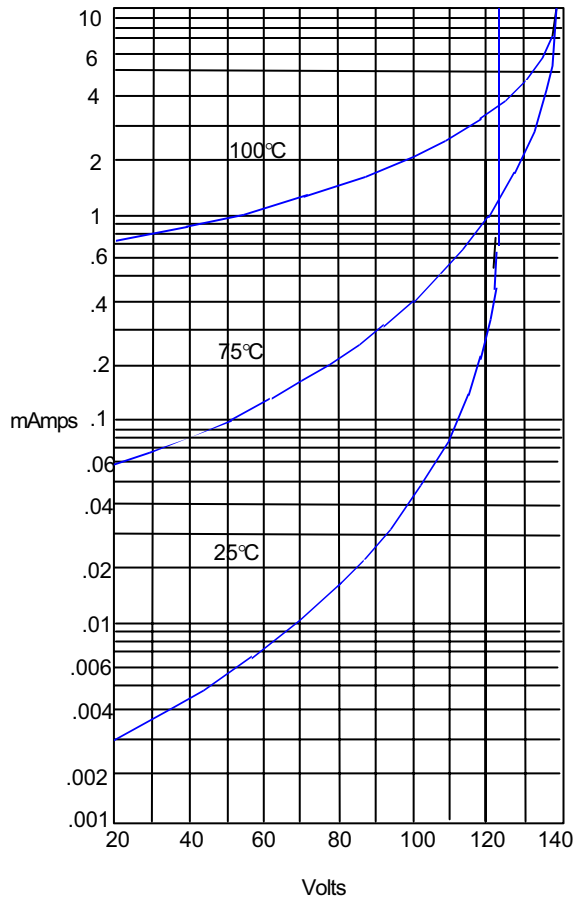
Figure 3  
 Junction Capacitance



Junction Capacitance - pF versus  
 Reverse Voltage - Volts

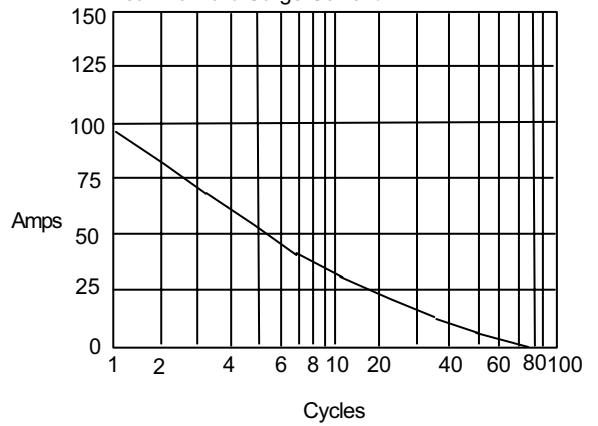
# SK52A-L thru SK510A-L

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



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### Ordering Information :

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

Note : Adding "-HF" suffix for halogen free, eg. SK52A-LTP-HF~SK510A-LTP-HF

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ZBMCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of ZiBo Micro Commercial Components Corp.

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