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# SK32B THRU SK310B

## Features

- Same Electrical Characteristics As The SMC Version
- Very Low Cost
- Can Be Up To 40% Smaller Than The SMC To Save Precious Board Space
- High Current Capability With Low Forward Voltage
- For Surface Mount Applications
- Gull Wing, Or DO215AA Version, Available

## Maximum Ratings

- Operating Temperature: -65°C to +125°C
- Storage Temperature: -65°C to +125°C
- Maximum Thermal Resistance; 12°C/W Junction To Lead

Microsemi Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SK32B	SK32	20V	14V	20V
SK33B	SK33	30V	21V	30V
SK34B	SK34	40V	28V	40V
SK35B	SK35	50V	35V	50V
SK36B	SK36	60V	42V	60V
SK38B	SK38	80V	56V	80V
SK310B	SK310	100V	70V	100V

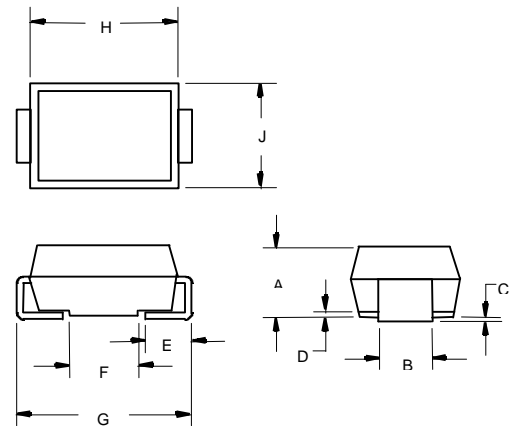
## Electrical Characteristics @ 25 °C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	3.0A	$T_A = 105^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	80A	8.3ms, half sine
Maximum Instantaneous Forward Voltage SK32-SK34 SK35-SK310	$V_F$	.50V .75V	$I_{FM} = 3.0A;$ $T_A = 25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	.5mA 20mA	$T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$
Typical Junction Capacitance	$C_J$	155pF	Measured at 1.0MHz, $V_R=4.0V$

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

## 3 Amp Schottky Rectifier 20 to 80 Volts

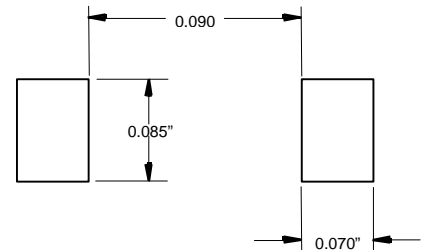
### DO-214AA (SMBJ)



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.075	.115	1.90	2.92	1
B	.081	.087	2.06	2.21	
C	.004	.008	.10	.20	
D	---	.02	---	.51	
E	.030	.060	.76	1.52	
F	.065	.084	1.65	2.13	
G	.205	.220	5.21	5.59	
H	.160	.180	4.06	4.57	
J	.130	.155	3.30	3.94	

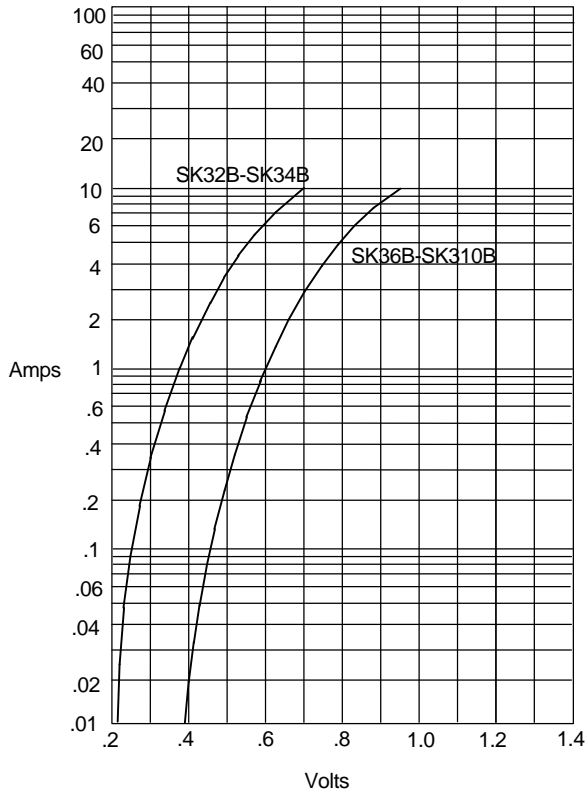
1) Maximum Jedec Spec is .096" or 2.44 MM

### SUGGESTED SOLDER PAD LAYOUT



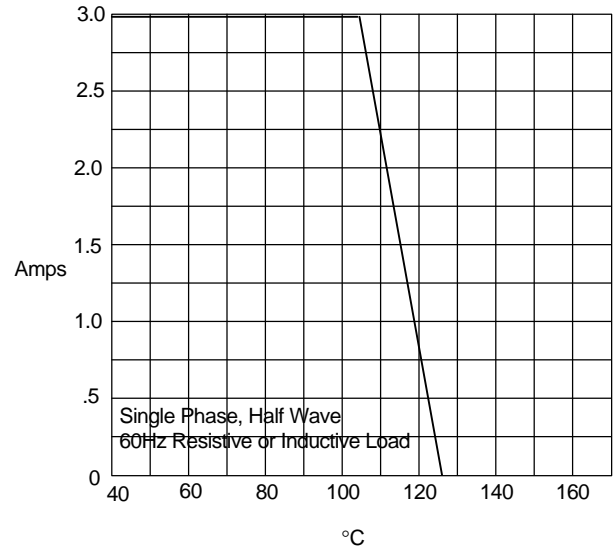
# SK32B thru SK310B

Figure 1  
Typical Forward Characteristics



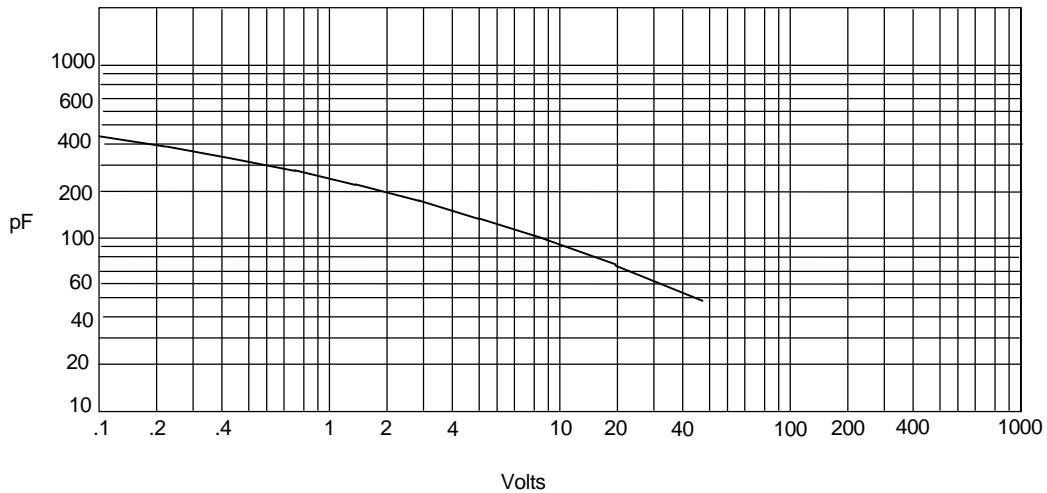
Instantaneous Forward Current - Amperes *versus*  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



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

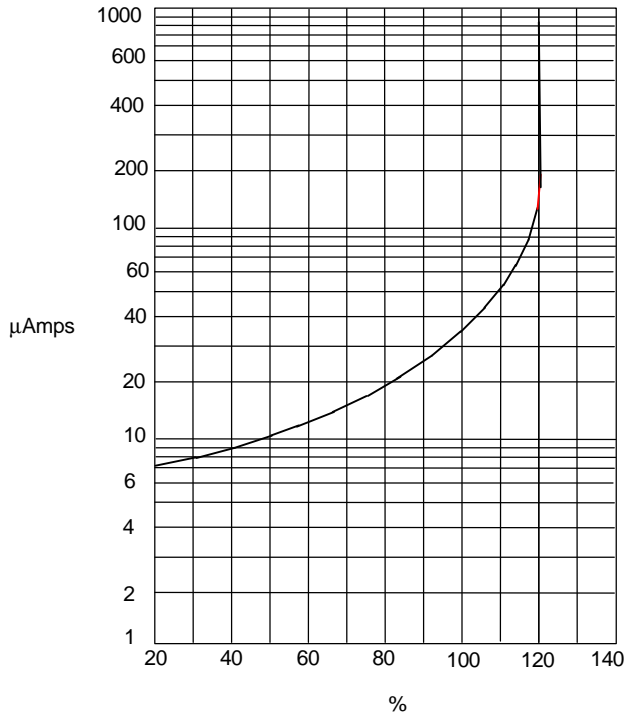
Figure 3  
Junction Capacitance



Junction Capacitance - pF *versus*  
Reverse Voltage - Volts

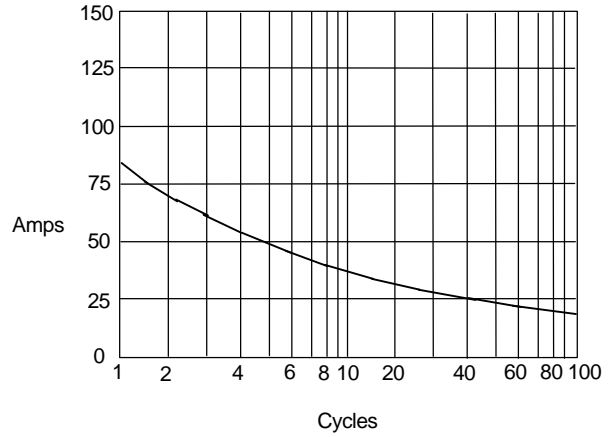
# SK32B thru SK310B

Figure 4  
Typical Reverse Characteristics



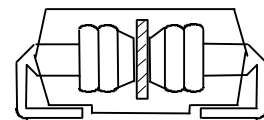
Instantaneous Reverse Leakage Current - MicroAmperes versus Percent Of Rated Peak Reverse Voltage ( $V_{RWM}$ ) - %

Figure 5  
Peak Forward Surge Current



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

Figure 6  
New SMB Assembly



Round Lead Process