



# SK32B THRU SK310B

## 3.0 AMPS. Surface Mount Schottky Barrier Rectifiers



Voltage Range  
20 to 100 Volts  
Current  
3.0 Amperes

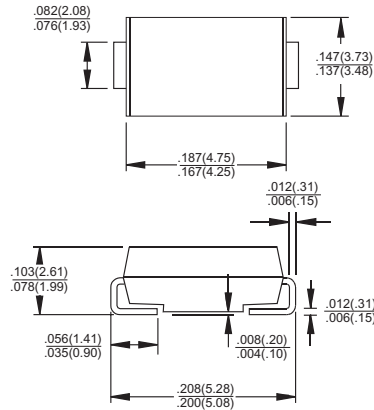
### Features

- ✧ For surface mounted application
- ✧ Metal to silicon rectifier, majority carrier conduction
- ✧ Low forward voltage drop
- ✧ Easy pick and place
- ✧ High surge current capability
- ✧ Plastic material used carriers Underwriters Laboratory Classification 94V-O
- ✧ Epitaxial construction
- ✧ High temperature soldering:  
260°C / 10 seconds at terminals

### Mechanical Data

- ✧ Case: Molded plastic
- ✧ Terminals: Solder plated
- ✧ Polarity: Indicated by cathode band
- ✧ Packaging: 16mm tape per EIA STD RS-481
- ✧ Weight: 0.1 gram

### SMB/DO-214AA



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	Symbol	SK 32B	SK 33B	SK 34B	SK 35B	SK 36B	SK 39B	SK 310B	Units	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	90	100	V	
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	63	70	V	
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	90	100	V	
Maximum Average Forward Rectified Current at $T_L$ (See Fig. 1)	$I_{(AV)}$	3.0							A	
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	100					150		A	
Maximum Instantaneous Forward Voltage @ 3.0A	$V_F$	0.5		0.75		0.85		V		
Maximum DC Reverse Current (Note 1) @ $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	$I_R$	0.5					0.6		mA mA	
		20		10.0		20.0				
Typical Thermal Resistance ( Note 2 )	$R\theta_{JL}$	17							$^\circ\text{C}/\text{W}$ $^\circ\text{C}/\text{W}$	
	$R\theta_{JA}$	75								
Operating Temperature Range	$T_J$	-55 to +125			-55 to +150				$^\circ\text{C}$	
Storage Temperature Range	$T_{STG}$	-55 to +150								$^\circ\text{C}$

Notes: 1. Pulse Test with PW=300 usec, 1% Duty Cycle

2. Measured on P.C.Board with 0.4 x 0.4" (10 x 10mm) Copper Pad Areas.

## RATINGS AND CHARACTERISTIC CURVES (SK32B THRU SK310B)

FIG. 1- MAXIMUM FORWARD CURRENT DERATING CURVE

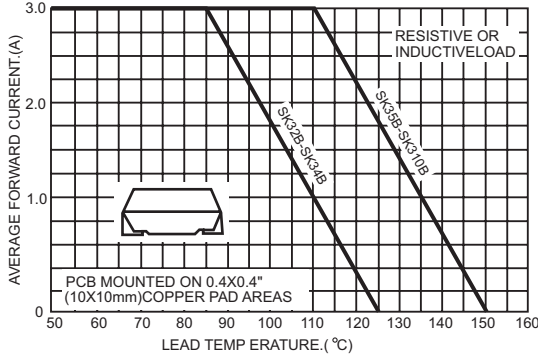


FIG. 2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

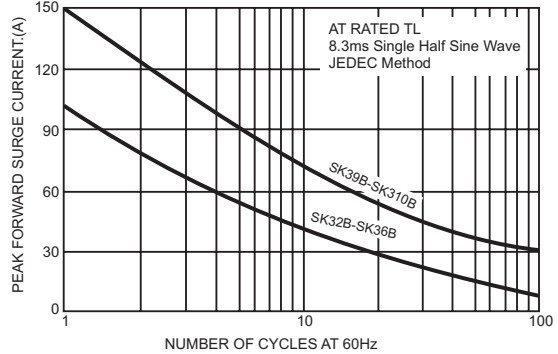


FIG. 3- TYPICAL FORWARD CHARACTERISTICS

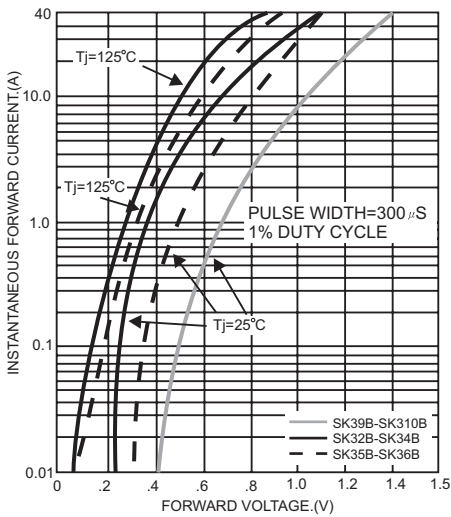


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

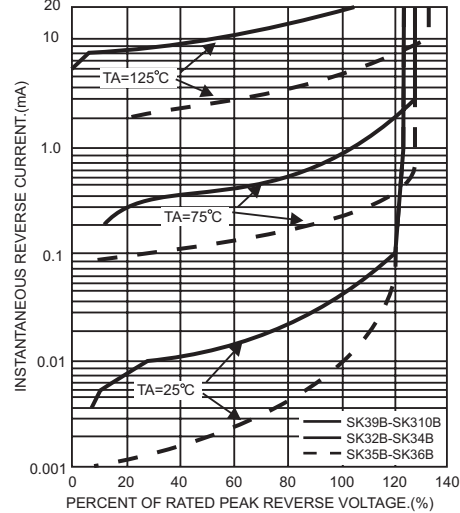


FIG. 5- TYPICAL JUNCTION CAPACITANCE

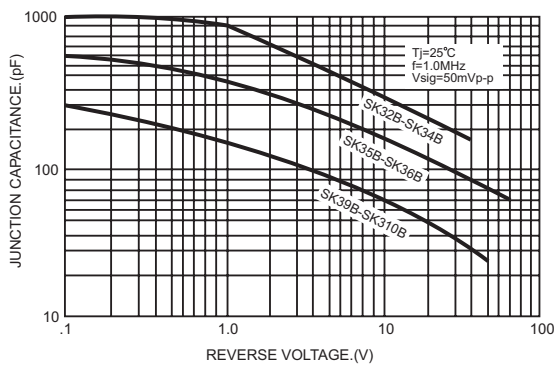


FIG. 6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS

