

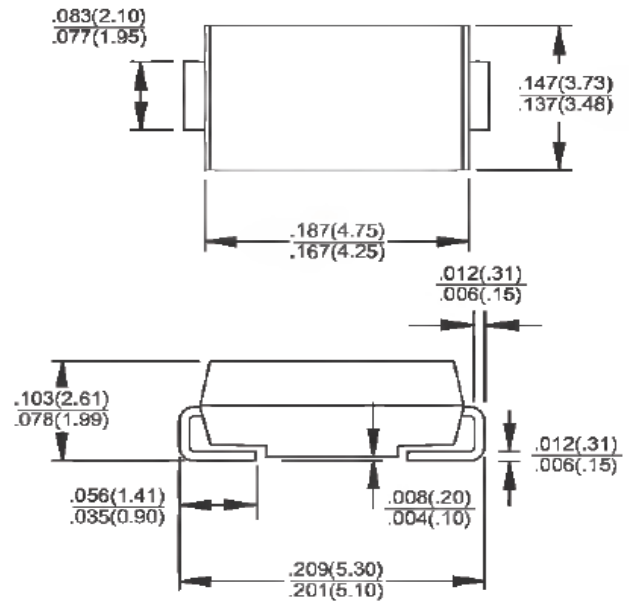


**Features**

- ✧ 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 Classisgication 94V-0
- ✧ Epitaxial construction
- ✧ High temperature soldering guaranteed: 260°C/10s at terminals
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode

**Mechanical Data**

- ✧ Case: Molded plastic
- ✧ Terminal: Pure tin plated, lead free
- ✧ Polarity: Indicated by cathode band
- ✧ Packaging: 8mm tape per EIA STD RS-481
- ✧ Weight: 0.093 grams



**Dimensions in inches and (millimeters)**

**Marking Diagram**



- SK1XB = Specific Device Code
- G = Green Compound
- Y = Year
- M = Work Month

**Maximum Ratings and Electrical Chara**

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 12B	SK 13B	SK 14B	SK 15B	SK 16B	SK 19B	SK 110B	SK 115B	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	90	100	150	V
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	63	70	105	V
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	90	100	150	V
Maximum Average Forward Rectified Current at 75°C	$I_{F(AV)}$	1								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	30								A
Maximum Instantaneous Forward Voltage (Note 1) @ 1 A	$V_F$	0.50		0.75		0.85		0.95		V
Maximum DC Reverse Current @ $T_A=25^\circ C$ at Rated DC Blocking Voltage @ $T_A=100^\circ C$ @ $T_A=125^\circ C$	$I_R$	0.5				0.1				mA
		10		5		-				
		-				2				
Typical Junction Capecitance (Note 2)	$C_j$	110								pF
Typical Thermal Resistance	$R_{\theta JL}$	25								°C/W
Operating Temperature Range	$T_J$	- 55 to + 125				- 55 to + 150				°C
Storage Temperature Range	$T_{STG}$	- 55 to + 150								°C

Note 1: Pulse Test with PW=300 usec, 1% Duty Cycle  
Note 2: Measured at 1.0 MHz and Applies Reverse Voltage of 4.0V

## RATINGS AND CHARACTERISTIC CURVES (SK12B THRU SK115B)

Fig. 1- Maximum Forward Current Derating Curve

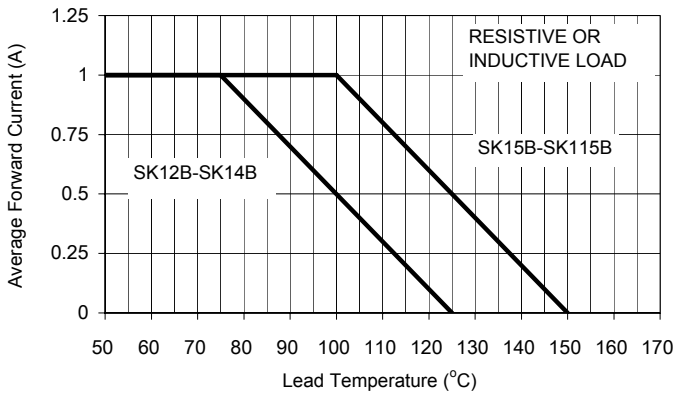


Fig. 2 Maximum Non-Repetitive Forward Surge Current

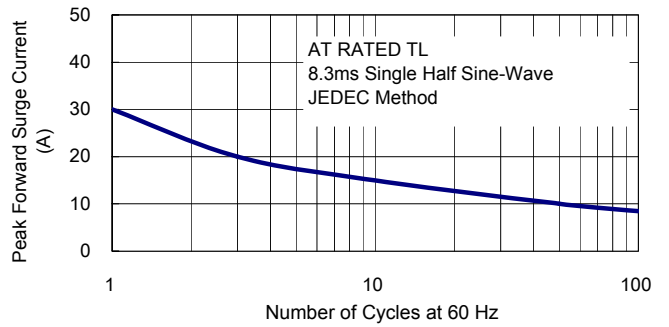


Fig. 3 Typical Forward Characteristics

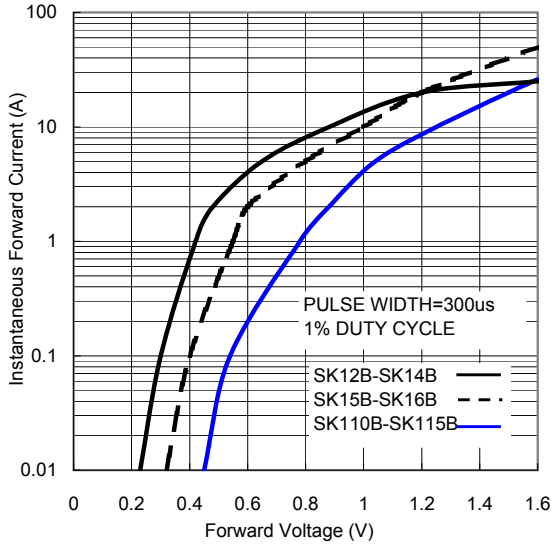


Fig. 4 Typical Reverse Characteristics

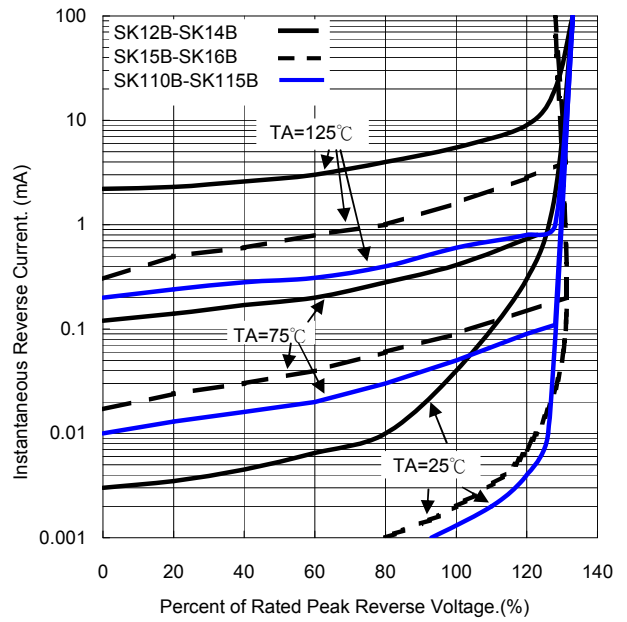


Fig. 5 Typical Junction Capacitance

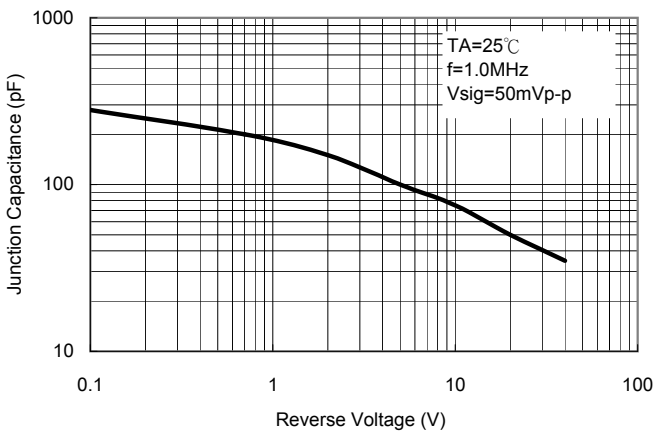


Fig. 6 Typical Transient Thermal Characteristics

