



SK12B - SK115B

1.0AMP Surface Mount Schottky Barrier Rectifier

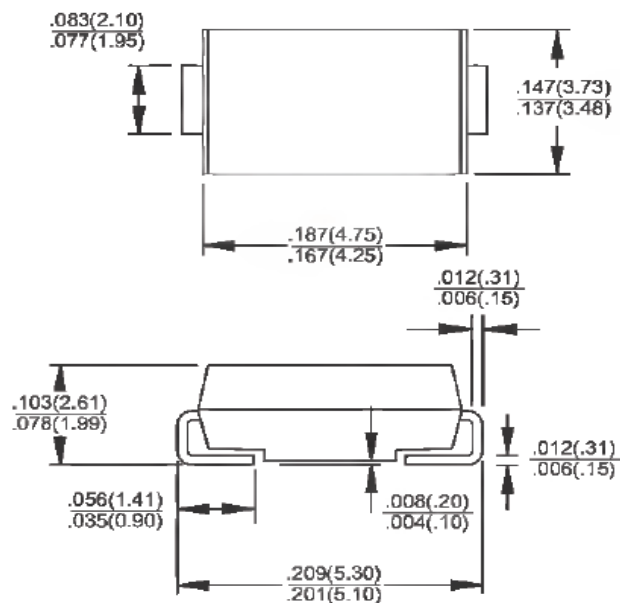
SMB/DO-214AA

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 Classfication 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℃	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 at Rated DC Blocking Voltage @ T_A=25 ℃ @ T_A=100℃ @ T_A=125 ℃	I _R	0.5					0.1		mA	
		10			5		-			
		-					2			
Typical Junction Capecitance (Note 2)	C _j	110								pF
Typical Thermal Resistance	R _{θJL}	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

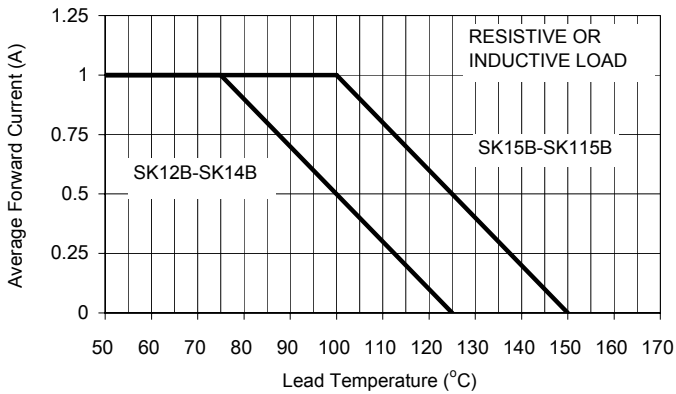


Fig. 2 Maximum Non-Repetitive Forward Surge Current

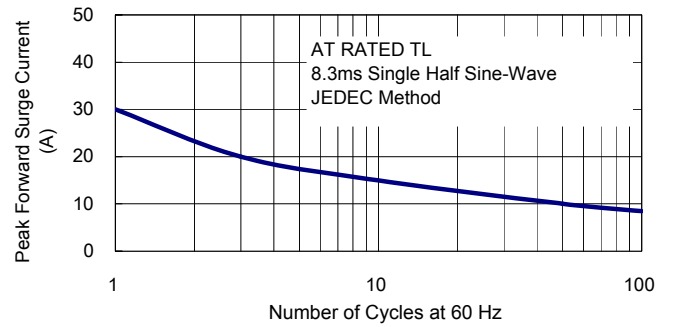


Fig. 3 Typical Forward Characteristics

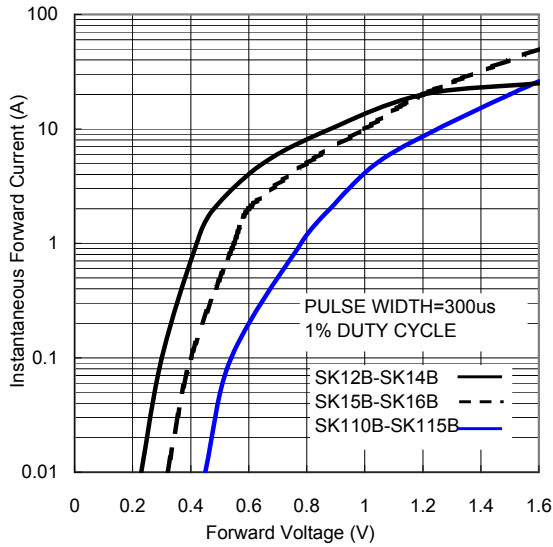


Fig. 4 Typical Reverse Characteristics

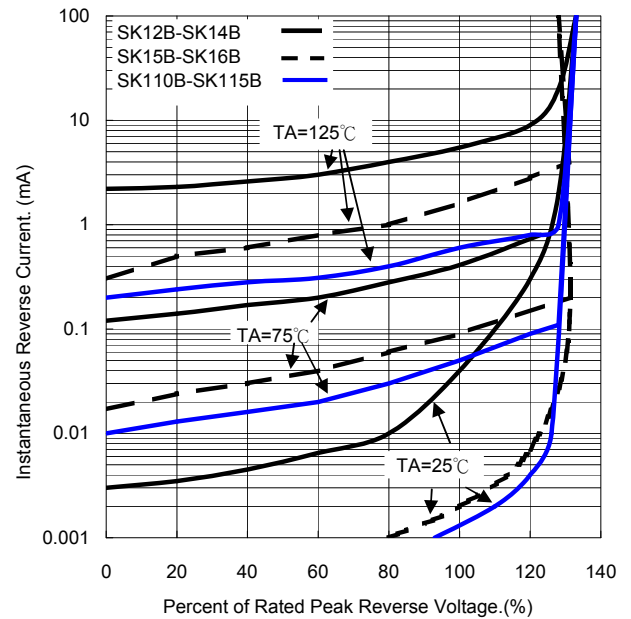


Fig. 5 Typical Junction Capacitance

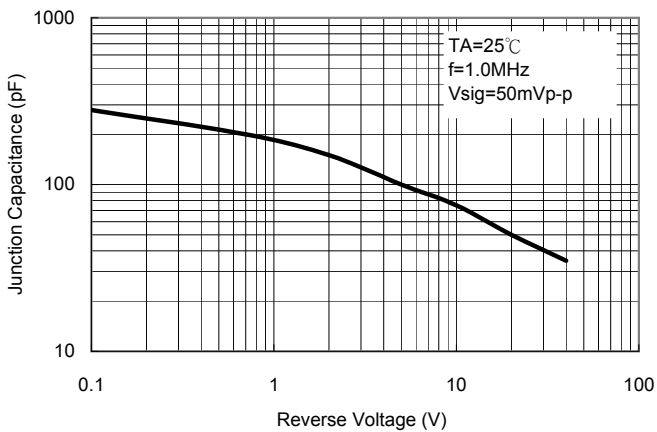


Fig. 6 Typical Transient Thermal Characteristics

