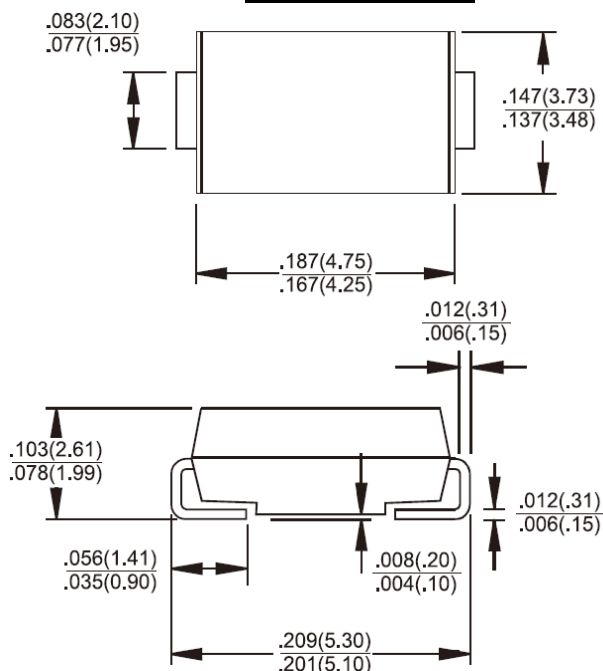


**3.0AMPS Surface Mount Schottky Barrier Rectifiers  
SMB/DO-214AA**



**Features**

- ✧ UL Recognized File # E-326243
- ✧ 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-0
- ✧ Epitaxial construction
- ✧ High temperature soldering: 260°C/10 seconds at terminals
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode



**Mechanical Data**

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

**Dimensions in inches and (millimeters)**

**Marking Diagram**



- SK3XB = Specific Device Code
- G = Green Compound
- Y = Year
- M = Work Month

**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	SK 315B	SK 320B	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	90	100	150	200	V
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	63	70	105	140	V
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	90	100	150	200	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	3.0									A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load	$I_{FSM}$	70									A
Maximum Instantaneous Forward Voltage (Note 1) @ 3.0A	$V_F$	0.5			0.75		0.85		0.95		V
Maximum Reverse Current @ Rated VR $T_A=25^\circ C$ $T_A=100^\circ C$ $T_A=125^\circ C$	$I_R$	0.5				0.1				mA	
		10		5		-					
		-				2					
Typical Thermal Resistance	$R_{\theta JL}$	17									$^\circ C/W$
	$R_{\theta JA}$	75									
Operating Temperature Range	$T_J$	- 55 to + 125				- 55 to + 150					$^\circ C$
Storage Temperature Range	$T_{STG}$	- 55 to + 150									$^\circ C$

Note 1: Pluse Test with PW=300 usec, 1% Duty Cycle

## RATINGS AND CHARACTERISTIC CURVES (SK32B THRU SK320B)

FIG. 1 FORWARD CURRENT DERATING CURVE

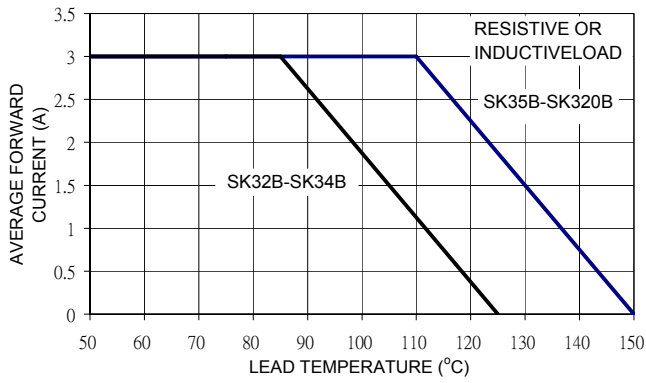


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

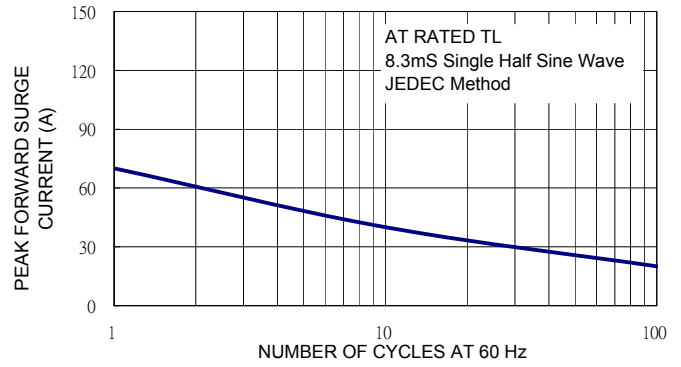


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

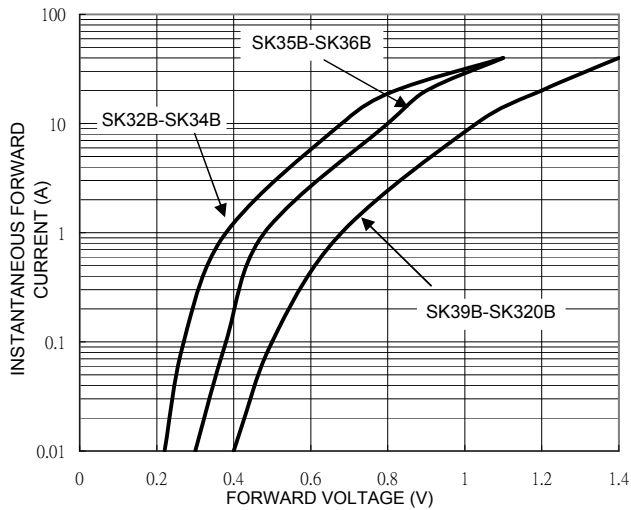


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

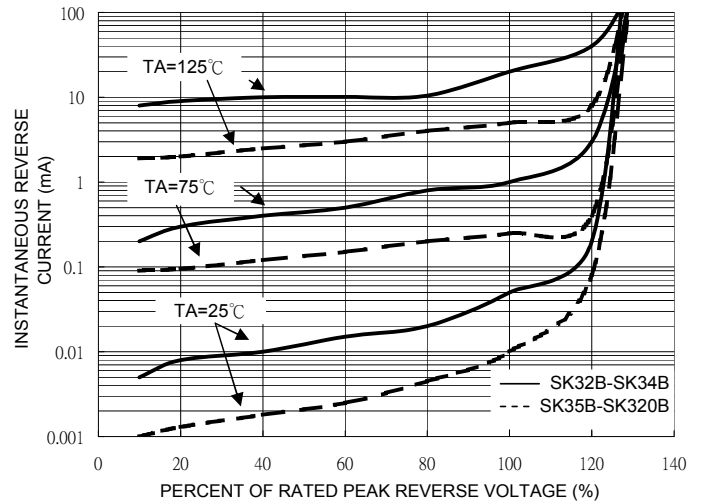


FIG. 5 TYPICAL JUNCTION CAPACITANCE

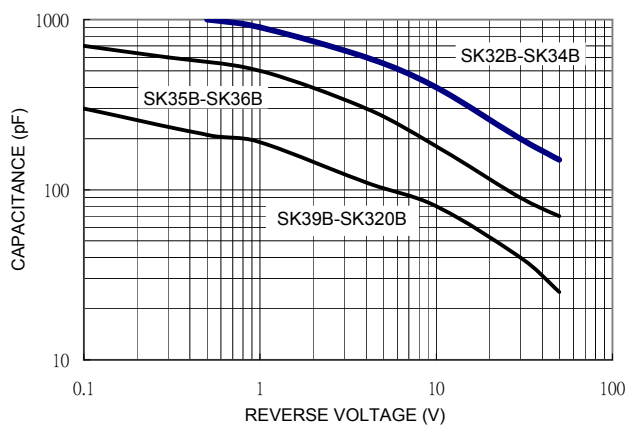


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE

