



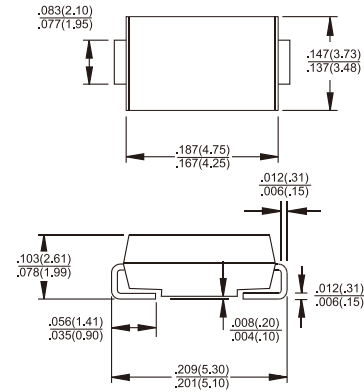
# SK12B - SK115B

## 1.0 AMP. 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.



Dimensions in inches and (millimeters)  
 Marking Diagram

### 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: 0.093 grams



SK1XB = 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 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 $T_A=75^\circ\text{C}$	$I_{F(AV)}$	1.0								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 @ 1.0A	$V_F$	0.5		0.75		0.85		0.95		V
Maximum DC Reverse Current (Note 1) @ $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage	$I_R$	0.5				0.1				mA
		10		5.0		-				mA
		-				2.0				mA
Typical Junction Capacitance (Note 2)	$C_j$	110								pF
Typical Thermal Resistance (Note 3)	$R_{\theta JL}$	25								$^\circ\text{C/W}$
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 at 1.0 MHz and Applies Reverse Voltage of 4.0V.  
 3. Measured on P.C.Board with 0.4" x 0.4" (10mm x 10mm) Copper Pad Area.

## RATINGS AND CHARACTERISTIC CURVES (SK12B THRU SK115B)

