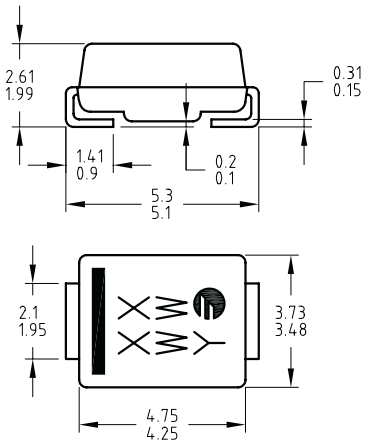
1 Amp. Surface Mount Schottky Barrier Rectifiers

RoHS COMPLIANCE

CASE:
SMB/DO-214AA



XX = Marking code
WW = Week code
Y = Year code

Dimensions in mm.

Voltage	**Current**
20 V to 150 V	1.0 A

- For surface mounted application
- Easy pick and place
- Metal to silicon rectifier, majority carrier conduction
- Low power loss, high efficiency
- High current capability. low VF
- High surge current capability
- Plastic material used carriers Underwraiters Laboratory Classification 94V-0
- Epitaxial construction
- High temperature soldering: 260 ºC / 10 seconds at terminals

MECHANICAL DATA

Case: Molded plastic
Terminals: Pure tin plated, lead free
Polarity: Indicated by cathode band
Packaging: 16 mm tape EIA-STD RS-481.
Weight: 0.093 g.

Maximum Ratings and Electrical Characteristics at 25 ºC

		SK 12B	SK 13B	SK 14B	SK 15B	SK 16B	SK 19B	SK 110B	SK 115B
	Marking code	I1	I2	I3	I4	I5	I6	I7	I8
V_{RRM}	Maximum Recurrent Peak Reverse Voltage (V)	20	30	40	50	60	90	100	150
V_{RMS}	Maximum RMS Voltage (V)	14	21	28	35	42	63	70	105
V_{DC}	Maximum DC Blocking Voltage (V)	20	30	40	50	60	90	100	150
$I_{F(AV)}$	Maximum Average Forward Rectified Current at T_L (See graphic)	1.0 A							
I_{FSM}	8.3 ms.Peak Forward Surge Current (Jedec Method)	30 A							
T_j	Operating Temperature Range	-55°C to +125°C			-55°C to +150°C				
T_{stg}	Storage Temperature Range	-55°C to +150°C							

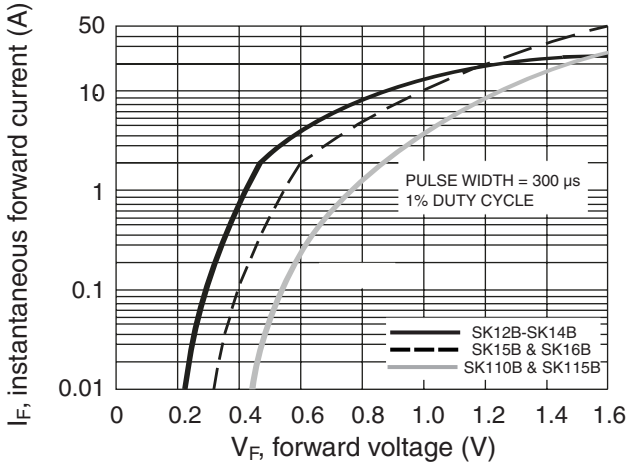
Electrical Characteristics at Tamb = 25 °C

V_F	Maximum Instantaneous Forward Voltage @ 1.0 A	0.5 V	0.75 V	0.85 V	0.95 V
I_R	Maximum DC Reverse Current (Note 1) T_A = 25 °C	0.5 mA		0.1 mA	
	at Rated DC Blocking Voltage T_A =100°C	10 mA	5.0 mA	--	
	T_A =125°C	--		2.0 mA	
C_j	Typical Junction Capacitance (Note 2)	110 pF			
R_{thj-l}	Typical Thermal Resistance (Note 3)	25 °C/W			

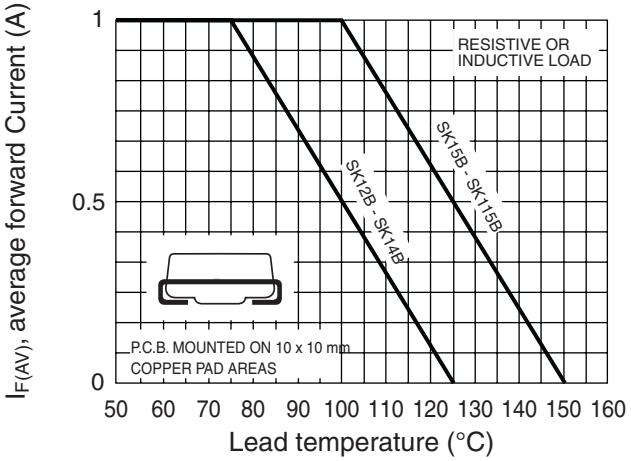
NOTES: 1. Pulse Test With PW = 300 µsec, 1% Duty Cycle
2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.
3. Measured on P.C. Board with 10mm x10mm Copper Pad Areas

Rating And Characteristic Curves

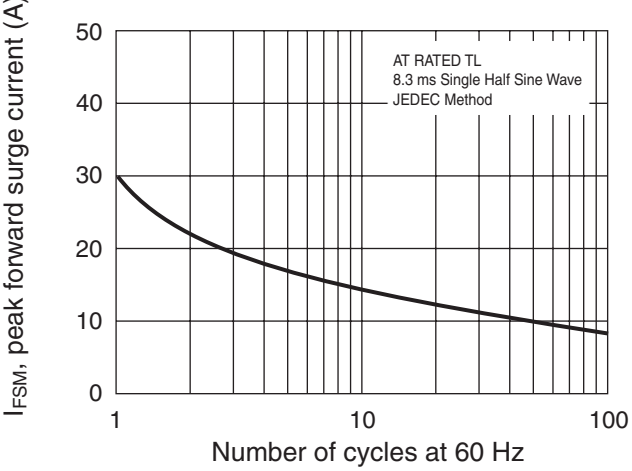
TYPICAL FORWARD CHARACTERISTIC



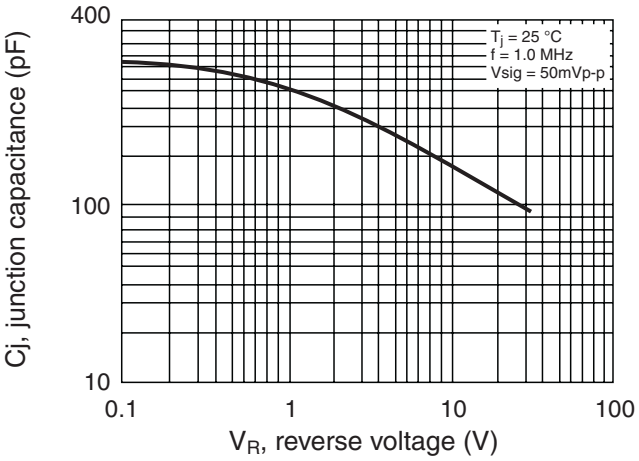
MAXIMUM FORWARD CURRENT DERATING CURVE



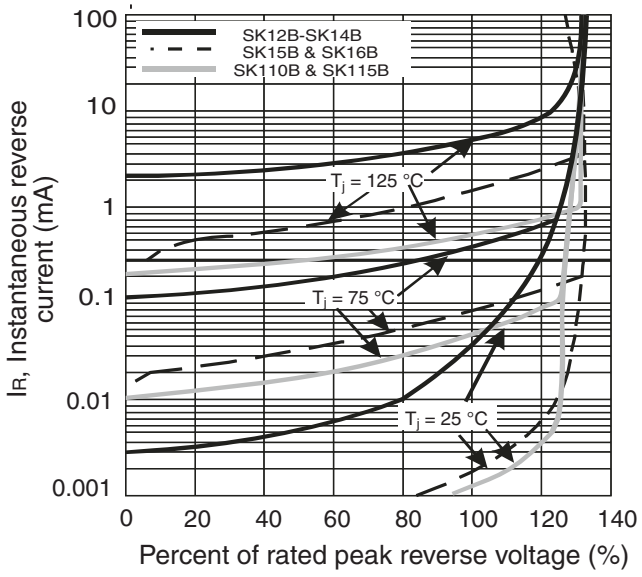
MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



TYPICAL JUNCTION CAPACITANCE



TYPICAL REVERSE CHARACTERISTIC



TYPICAL TRANSIENT THERMAL CHARACTERISTIC