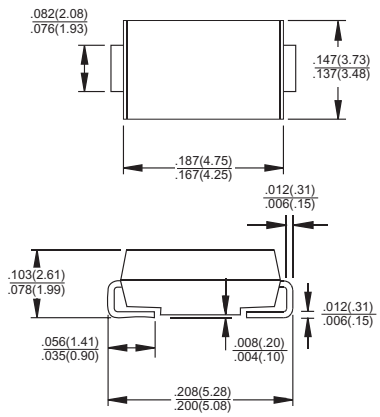
SK12B THRU SK110B

1.0 AMPS. Surface Mount Schottky Barrier Rectifiers

Voltage Range
20 to 100 Volts
Current
1.0 Amperes

SMB/DO-214AA



Dimensions in inches and (millimeters)

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 Classification 94V-O
- ✧ Epitaxial construction
- ✧ High temperature soldering: 260°C / 10 seconds at terminals

Mechanical Data

- ✧ Case: Molded plastic
- ✧ Terminals: Solder plated
- ✧ Polarity: Indicated by cathode band
- ✧ Packaging: 16mm tape per EIA STD RS-481
- ✧ Weight: 0.093 gram

Maximum Ratings and Electrical Characteristics

Rating at 25℃ 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 110B	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	100	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	70	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	100	V
Maximum Average Forward Rectified Current at T_A=75℃	$I_{(AV)}$	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	V
Maximum DC Reverse Current (Note 1)@ T_A =25℃	I_R	0.5						mA
at Rated DC Blocking Voltage @ T_A=100℃		10.0			5.0		1.0	mA
Typical Thermal Resistance (Note 1)	$R\theta_{JL}$	25						℃/W
Typical Junction Capacitance (Note 2)	Cj	110						pF
Operating Temperature Range	T_J	-55 to +125			-55 to +150			℃
Storage Temperature Range	T_{STG}	-55 to +150						℃

Notes: 1. Thermal Resistance from Junction to Lead.
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" (10 x 10mm) Copper Pad Areas.

RATINGS AND CHARACTERISTIC CURVES (SK12B THRU SK110B)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

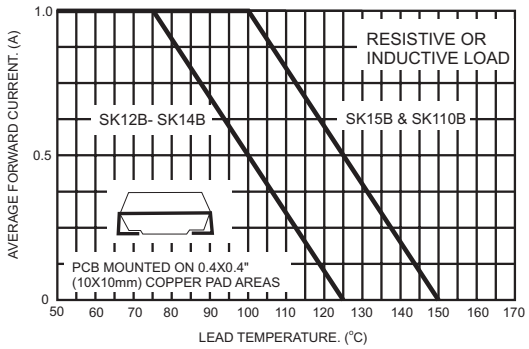


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

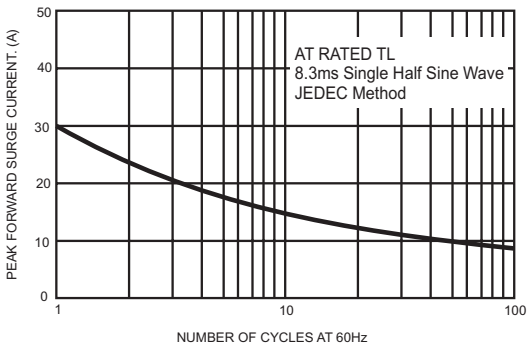


FIG.3- TYPICAL FORWARD CHARACTERISTICS

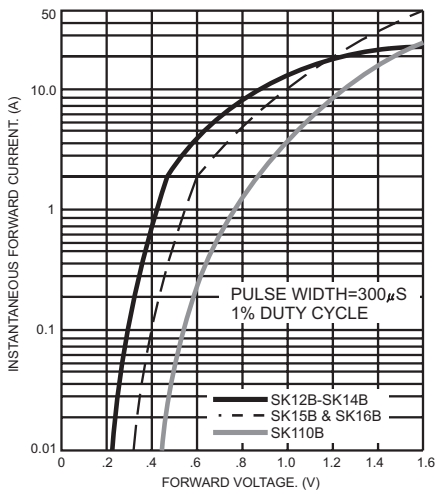


FIG.4- TYPICAL REVERSE CHARACTERISTICS

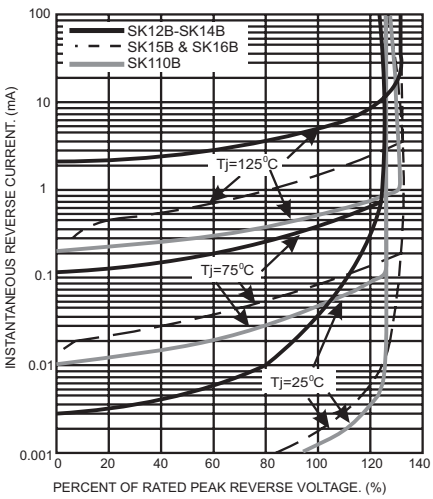
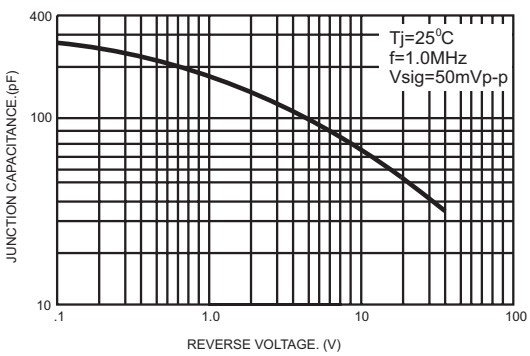



FIG.5- TYPICAL JUNCTION CAPACITANCE