



Features

- ◊ UL Recognized File # E-326243
- ◊ For surface mounted application
- ◊ Glass passivated junction chip.
- ◊ Low forward voltage drop
- ◊ High current capability
- ◊ Easy pick and place
- ◊ High surge current capability
- ◊ Plastic material used carries Underwriters Laboratory Classification 94V-0
- ◊ 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: 12mm tape per EIA STD RS-481
- ◊ Weight: 0.093 grams

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	S1 AB	S1 BB	S1 DB	S1 GB	S1 JB	S1 KB	S1 MB	Units
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @ T _L = 110 °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				1.1				V
Maximum DC Reverse Current @ T _A = 25 °C	I _R				5				uA
Rated DC Blocking Voltage (Note 1) @ T _A = 125 °C					50				uA
Typical Junction Capacitance (Note 3)	C _j				12				pF
Typical Thermal Resistance (Note 2)	R _{θJL}				30				°C/W
Operating Temperature Range	T _J				-55 to +150				°C
Storage Temperature Range	T _{STG}				-55 to +150				°C

Notes: 1. Pulse Test with PW=300 usec, 1% Duty Cycle

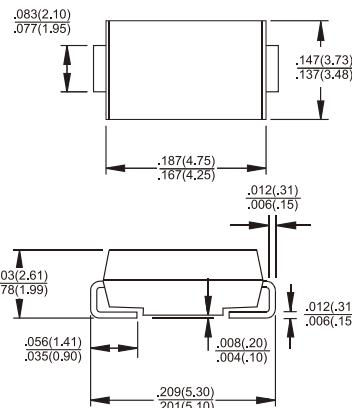
2. Measured on P.C. Board with 0.4" x 0.4" (10mm x10mm) Copper Pad Areas.

3. Measured at 1 MHz and Applied V_R=4.0 Volts

S1AB - S1MB

1.0 AMP. Surface Mount Rectifiers

SMB/DO-214AA



Dimensions in inches and (millimeters)

Marking Diagram



S1XB = Specific Device Code
 G = Green Compound
 Y = Year
 M = Work Month

RATINGS AND CHARACTERISTIC CURVES (S1AB THRU S1MB)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

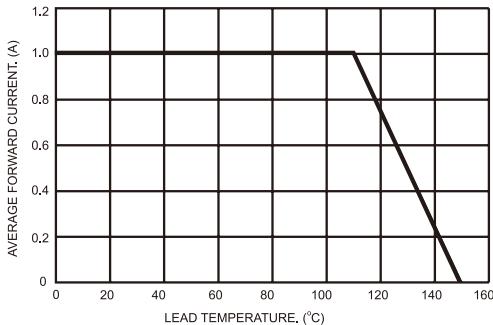


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

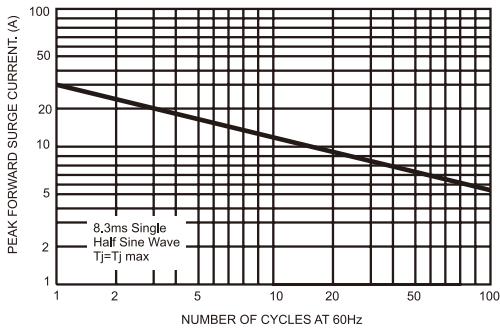


FIG.4- TYPICAL JUNCTION CAPACITANCE

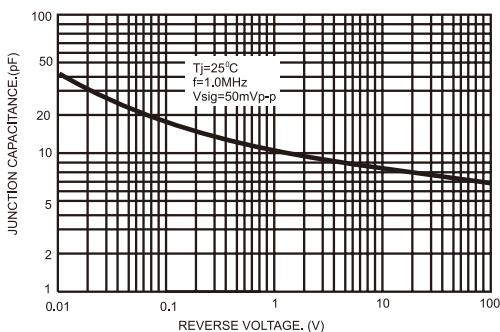


FIG.2- TYPICAL REVERSE CHARACTERISTICS

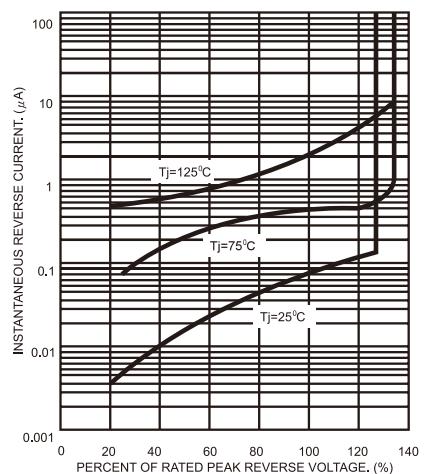
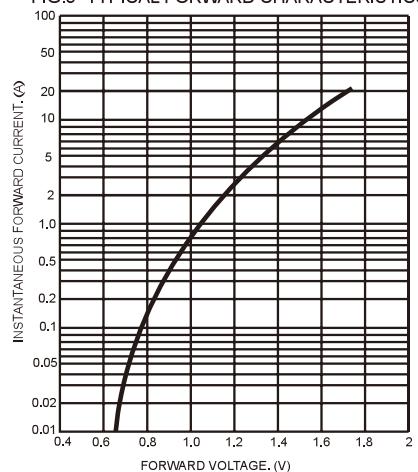


FIG.5- TYPICAL FORWARD CHARACTERISTICS



Mouser Electronics

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