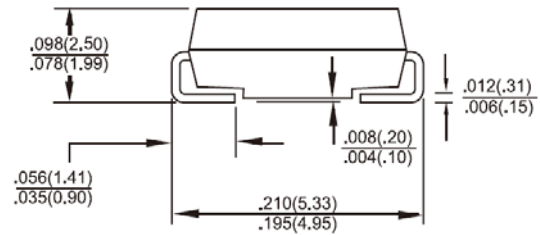
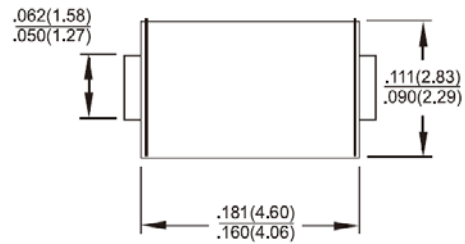



**Features**

- ✧ 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
- ✧ Terminal: Pure tin plated, lead free
- ✧ Polarity: Indicated by cathode band
- ✧ Packaging: 12mm tape per EIA STD RS-481
- ✧ Weight: 0.064 grams

**Dimensions in inches and (millimeters)**
**Marking Diagram**


- S2XA = 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	S2 AA	S2 BA	S2 DA	S2 GA	S2 JA	S2 KA	S2 MA	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 @ $T_L=100^\circ\text{C}$	$I_{F(AV)}$	1.5							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	50							A
Maximum Instantaneous Forward Voltage (Note 1) @ 1.5A	$V_F$	1.1							V
Maximum DC Reverse Current at @ $T_A=25^\circ\text{C}$ Rated DC Blocking Voltage @ $T_A=125^\circ\text{C}$	$I_R$	5 125							 uA
Maximum Reverse Recovery Time (Note 2)	$T_{rr}$	1.5							uS
Typical Junction Capacitance (Note 3)	$C_j$	30							pF
Typical Thermal Resistance	$R_{\theta JL}$ $R_{\theta JA}$	16 53							 °C/W
Operating Temperature Range	$T_J$	- 55 to + 150							°C
Storage Temperature Range	$T_{STG}$	- 55 to + 150							°C

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

 Note 2: Reverse Recovery Test Conditions:  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $I_{RR}=0.25A$ 

 Note 3: Measured at 1 MHz and Applied  $V_R=4.0$  Volts

## RATINGS AND CHARACTERISTIC CURVES (S2AA THRU S2MA)

FIG. 1- MAXIMUM FORWARD CURRENT DERATING CURVE

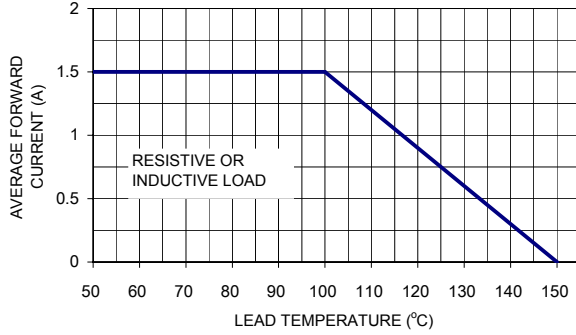


FIG. 2- TYPICAL REVERSE CHARACTERISTICS

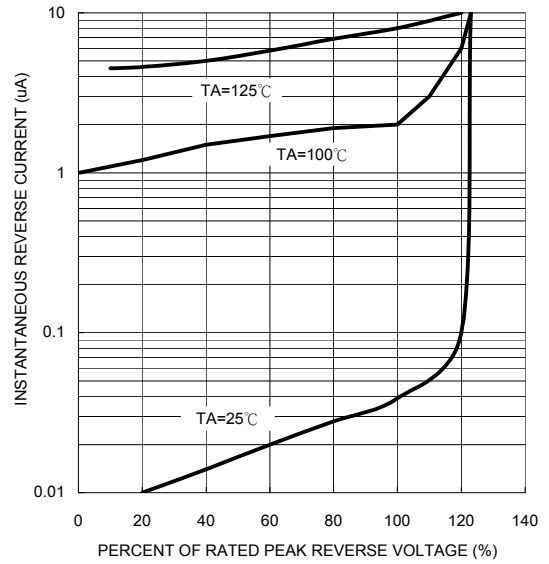


FIG. 3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

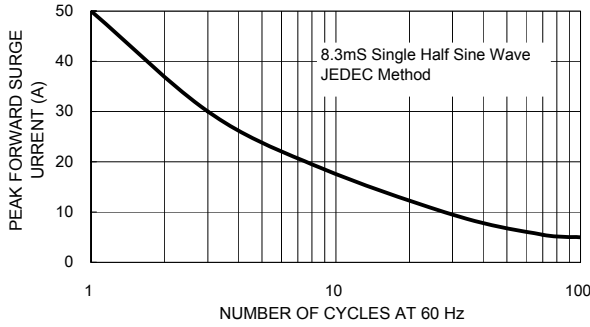


FIG. 5- TYPICAL FORWARD CHARACTERISTICS

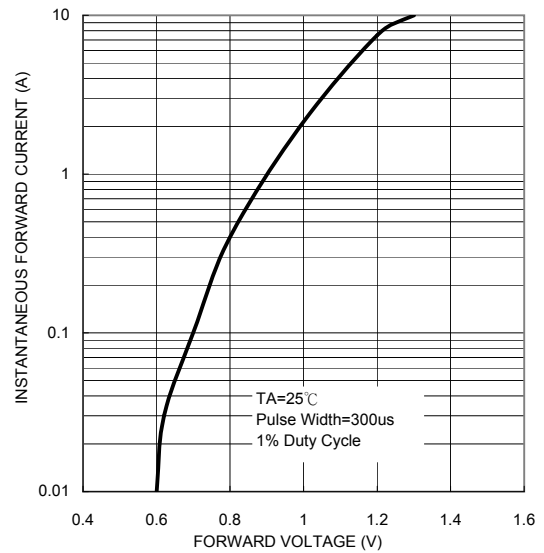


FIG. 4- TYPICAL JUNCTION CAPACITANCE

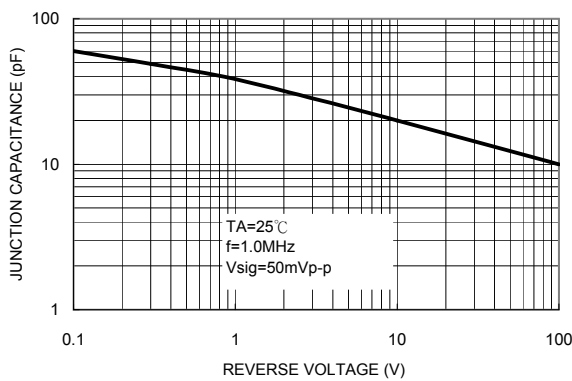


FIG. 6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

