







## **Features**

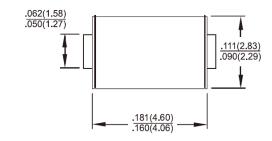
- For surface mounted application
- Glass passivated chip junction
- Low forward voltage drop
- High current capability
- Easy pick and place
- High surge current capability
- Plastic material used carries Underwriters Laboratory Classification 94V-0
- High temperature soldering:  $260^{\circ}$ C/10 seconds at terminals
- Qualified as per AEC-Q101
- Green compound with suffix "G" on packing code & prefix "G" on datecode

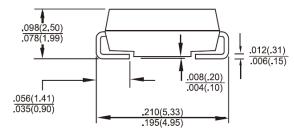
## **Mechanical Data**

- Case: Molded plastic
- Terminal: Pure tin plated, lead free solderable per J-STD-002B and JESD22-B102D
- Polarity: Indicated by cathode band
- Packing: 12mm tape per EIA STD RS-481
- Weight: 0.064 grams

# 1.0AMP Surface Mount Rectifiers

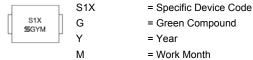
## SMA/DO-214AC





## **Dimensions in inches and (millimeters)**

## **Marking Diagram**



## **Maximum Ratings and Electrical Characteristics**

Rating at 25  $^{\circ}\!\mathbb{C}$  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	S1A	S1B	S1D	S1G	S1J	S1K	S1M	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	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	$I_{F(AV)}$	1							Α
Peak Forward Surge Current, 8.3 ms Single Half Sinewave Superimposed on Rated Load (JEDEC method)	I <sub>FSM</sub>	40 30						30	Α
Maximum Instantaneous Forward Voltage (Note 1) @ 1 A	V <sub>F</sub>	1.1							٧
Maximum Reverse Current @ Rated VR $T_A$ =25 $^{\circ}$ C $T_A$ =125 $^{\circ}$ C	I <sub>R</sub>	1 50							uA
Maximum Reverse Recovery Time (Note 2)	Trr	1.5							uS
Typical Junction Capacitance (Note 3)	Cj	12							pF
Non-Repetitive Peak Reverse Avalanche Engergy at 25°C, I <sub>AS</sub> =1A, L=10mH	E <sub>RSM</sub>	5							mJ
Typical Thermal Resistance	$R_{ heta j A} \ R_{ heta j L}$	75 27			_	35 30	°C/W		
Operating Temperature Range	T <sub>J</sub>	- 55 to + 175							οС
Storage Temperature Range	T <sub>STG</sub>	- 55 to + 175							οС

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 Reverse Voltage of 4.0V D.C.



## RATINGS AND CHARACTERISTIC CURVES (S1A THRU S1M)

