

1.0A Surface Mount Sintered Glass Passivated Rectifier (SGP[®])

Features

- Sintered glass passivated (SGP[®]) rectifier chip
- Low profile surface mounted package
- Sintered glass passivated cavity-free junction
- Plastic package has underwriters laboratory flammability classification 94V-0
- High temperature soldering: 260 °C / 10 seconds at terminals
- RoHS compliant



SMA



Mechanical Data

Case:	JEDEC DO-214AC molded plastic
Terminals:	Solder plated solderable per MIL-STD-750, Method 2026
Polarity:	Cathode end indicated by color band
Weight:	0.002 Ounce, 0.064 gram

Maximum Ratings & Electrical Characteristics (*T_{Ambient}*=25°C unless noted)

Symbol	Description	GF 1Q	GF 1V	GF 1W	GF 1Y	GF 1Z	GF 1MM	Unit	Conditions
V_{RRM}	Maximum Repetitive Peak Reverse Voltage	1200	1400	1500	1600	1800	2000	V	
V_{RMS}	Maximum RMS Voltage	840	980	1050	1120	1260	1400	V	
V_{DC}	Maximum DC Blocking Voltage	1200	1400	1500	1600	1800	2000	V	
I_{F(AV)}	Maximum Average Forward Rectified Current	1.0						A	
I_{FSM}	Peak Forward Surge Current	25						A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method)
V_F	Maximum Instantaneous Forward Voltage	1.25				2.0		V	I _F =1.0A
I_R	Maximum DC Reverse Current at Rated DC Blocking Voltage	5.0						µA	TA=25° C
		50							TA=125° C
C_J	Typical Junction Capacitance	12						pF	V _R =4V, f=1MHz

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GF1Q - GF1MM

Symbol	Description	GF 1Q	GF 1V	GF 1W	GF 1Y	GF 1Z	GF 1MM	Unit	Conditions
RthJA	Typical Thermal Resistance	75						°C / W	Note
RthJL		27							
TJ, TSTG	Operating Junction and Storage Temperature Range	-55 to +150						°C	

Note: Thermal resistance from junction to ambient and from junction to lead P.C.B. mounted on 0.2x0.2" (5.0 x5.0mm) copper pad areas.

Typical Characteristics Curves

Fig.1- Forward Current Derating Curve

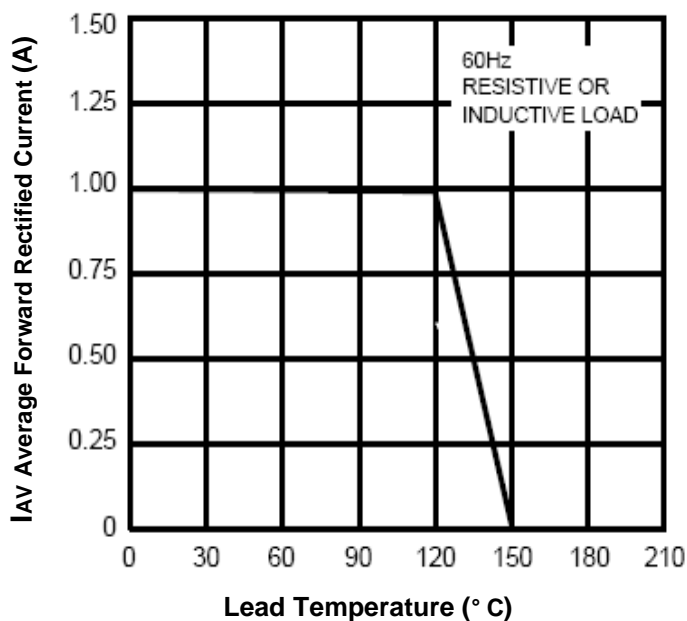
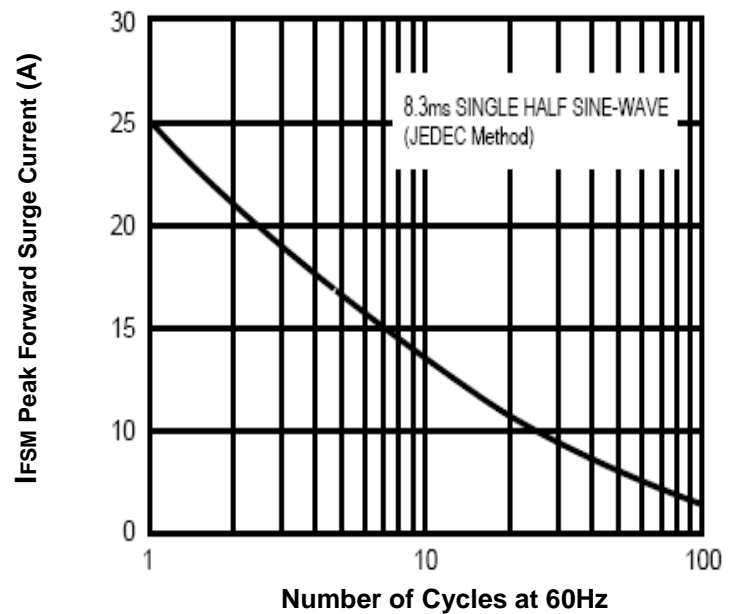


Fig.2- Max. Non-Repetitive Peak Forward Surge Current



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Fig.3- Typical Instantaneous Forward Characteristics

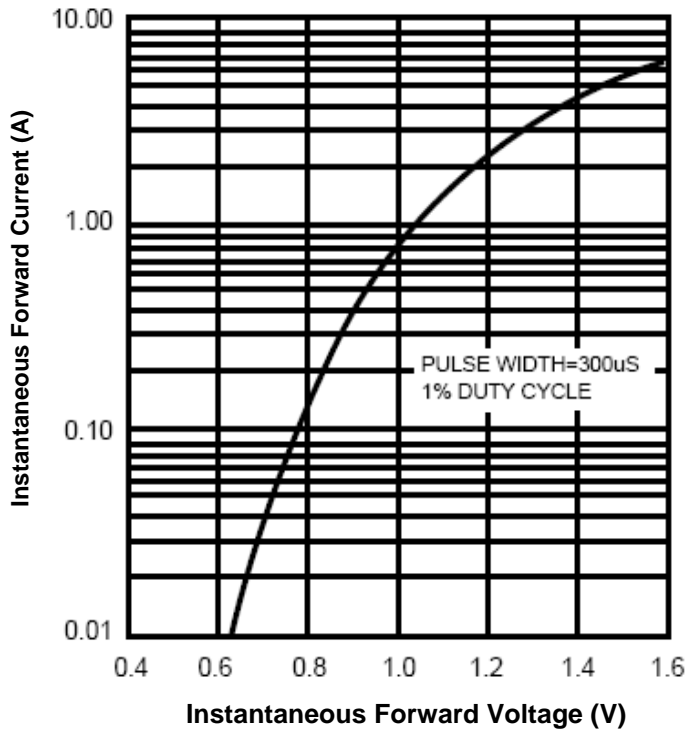


Fig.4- Typical Reverse Characteristics

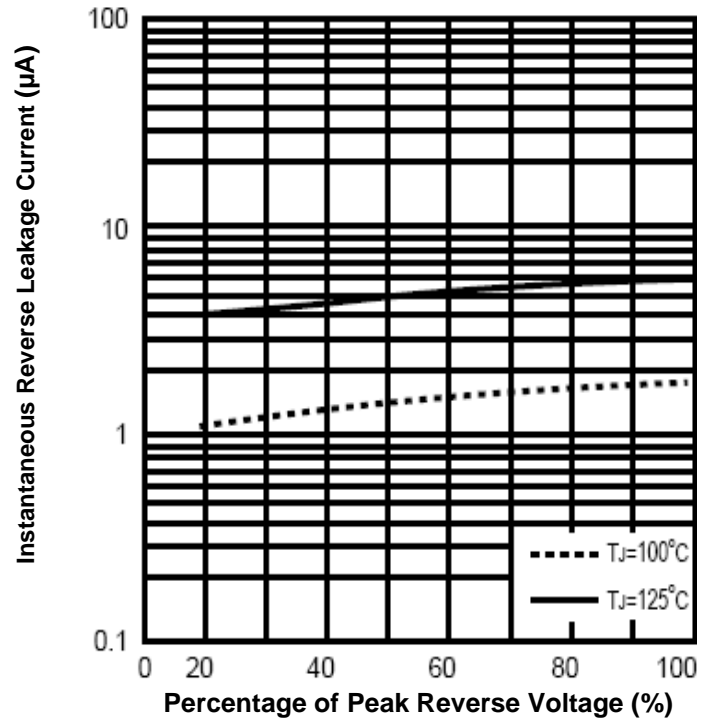
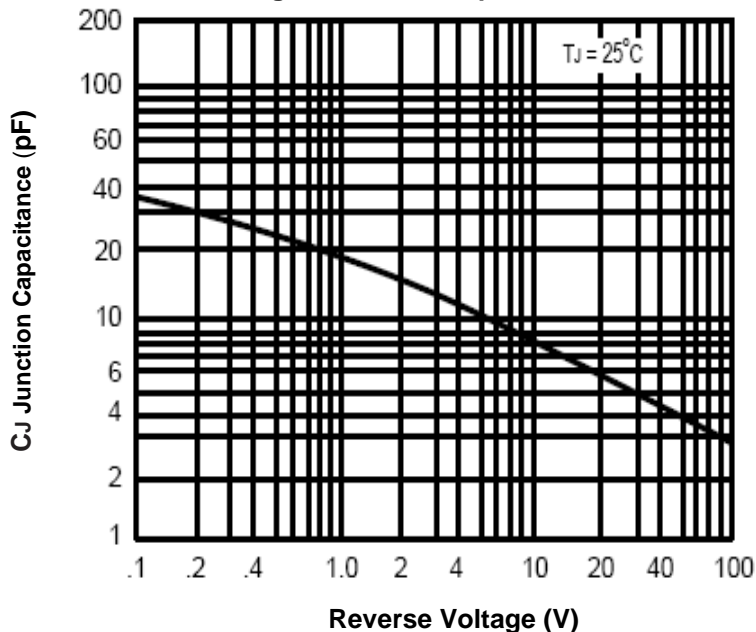


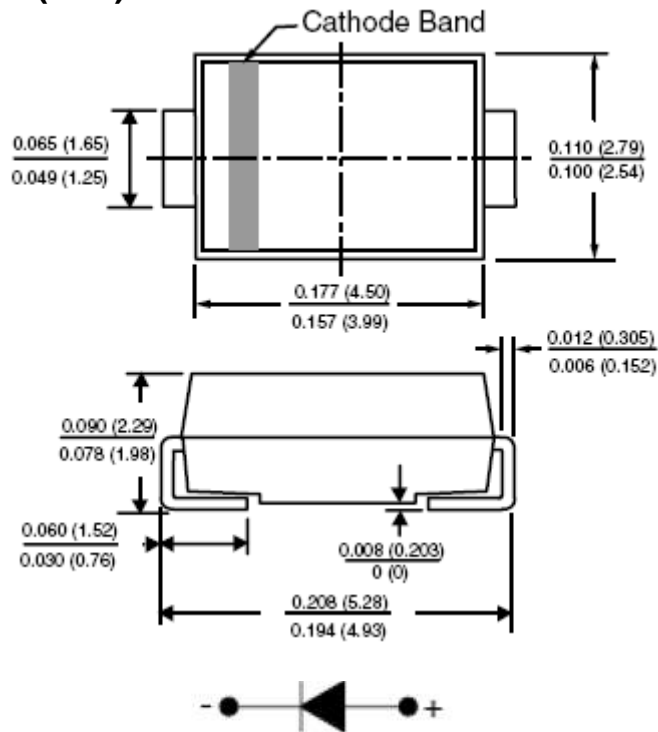
Fig.5- Junction Capacitance



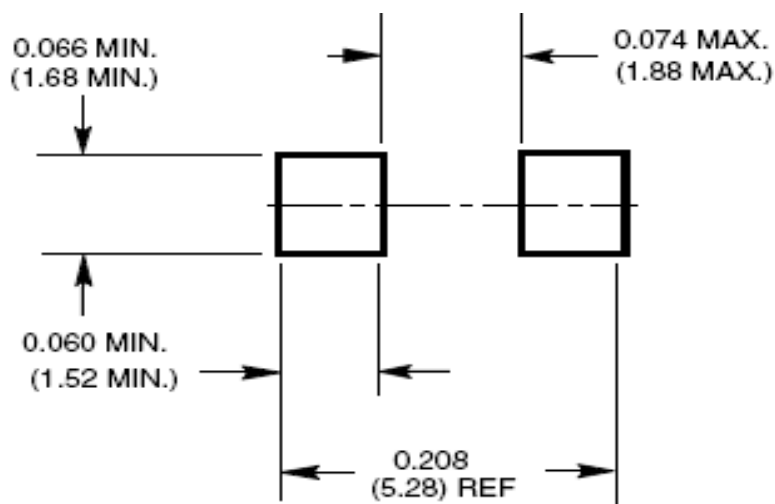
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Dimensions in inch (mm)



Soldering Pad in inch (mm)



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