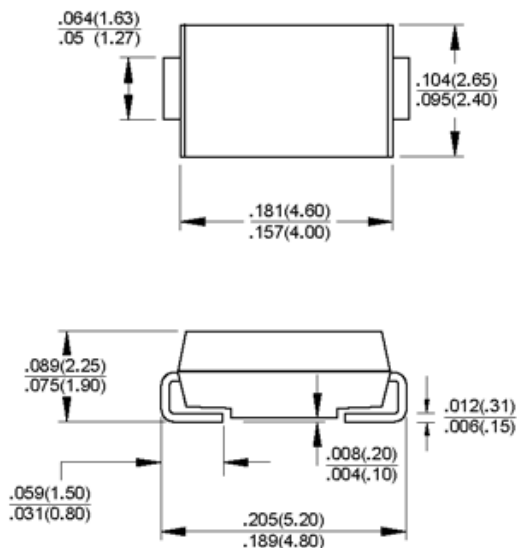


Surface Mount Glass Passivated Rectifiers
FEATURES

- Reverse Voltage 50 to 1000 V
- Forward Current 1.0 A
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Low profile package
- Built-in strain relief, ideal for automated placement
- Glass passivated chip junction
- High temperature soldering: 250°C/10 seconds at terminals

MECHANICAL DATA

- Case: JEDEC DO-214AC (SMA) molded plastic over glass passivated chip
- Terminals: Solder plated, solder-able per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.002 ounce, 0.064 gram

DO-214AC (SMA)

Dimensions in inches and (millimeters)

Pb-free; RoHS-compliant

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbols	S1A	S1B	S1D	S1G	S1J	S1K	S1M	Units
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	VRMS	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current (see fig.1)	IF(AV)	1.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load(JEDEC Method) $T_L=110^{\circ}\text{C}$	IFSM	40.0					30.0		Amps
Maximum instantaneous forward voltage at 1.0A	VF	1.10							Volts
Maximum DC reverse current @ $T_A=25^{\circ}\text{C}$ at rated DC blocking voltage @ $T_A=125^{\circ}\text{C}$	IR	1.0					5.0		uA
		50							
Typical reverse recovery time at $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$	trr	1.0							uS
Typical junction capacitance at 4.0V, 1MHz	CJ	12							pF
Typical thermal resistance (NOTE 1)	R	75					85		$^{\circ}\text{C}/\text{W}$
	RJL	27					30		
Operating junction temperature range	TJ	-55 to +150							$^{\circ}\text{C}$
Storage temperature range	TSTG	-55 to +150							$^{\circ}\text{C}$

NOTE: 1. Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas

RATINGS AND CHARACTERISTIC CURVES

Fig. 1 – Forward Current Derating Curve

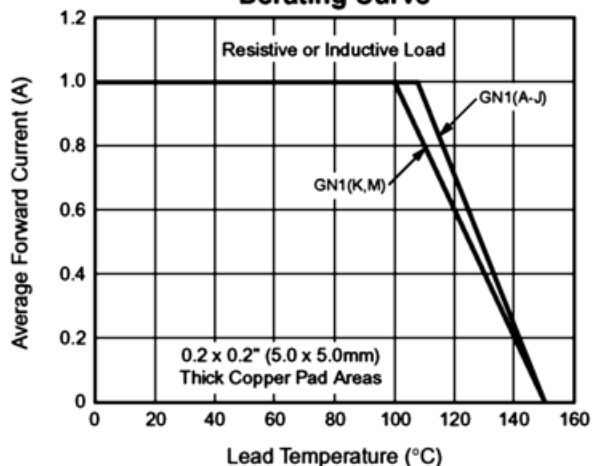


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

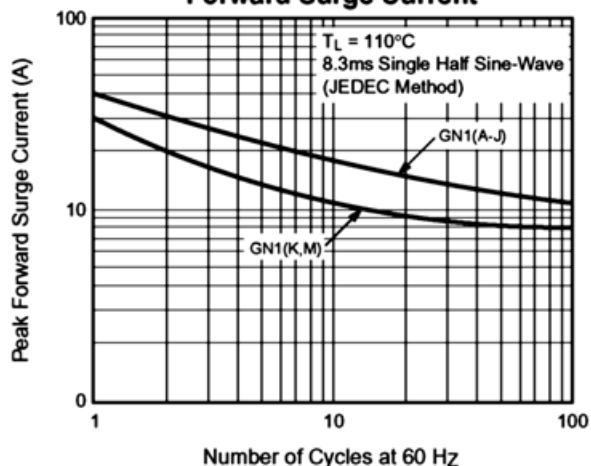


Fig. 3 – Typical Instantaneous Forward Characteristics

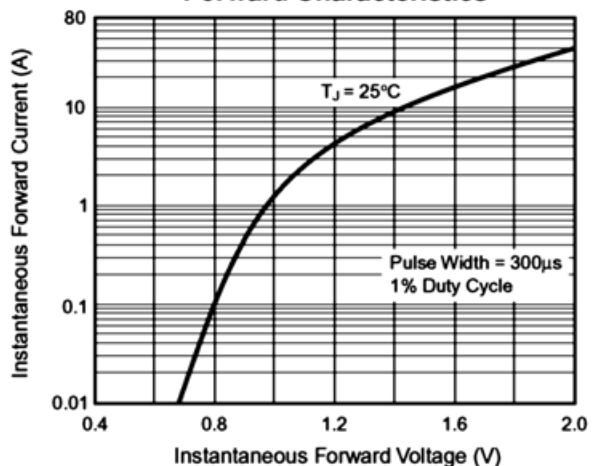


Fig. 4 – Typical Reverse Leakage Characteristics

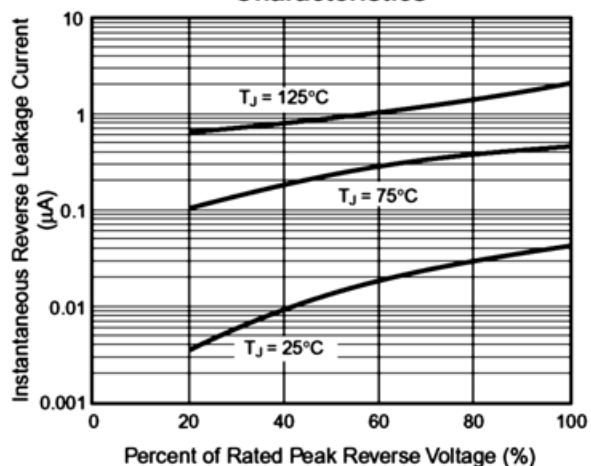


Fig. 5 – Typical Junction Capacitance

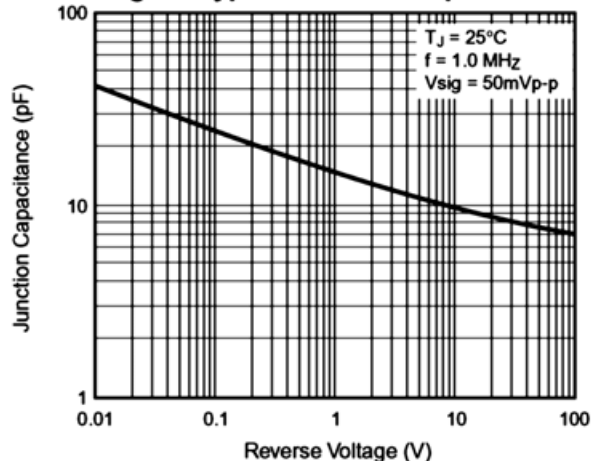
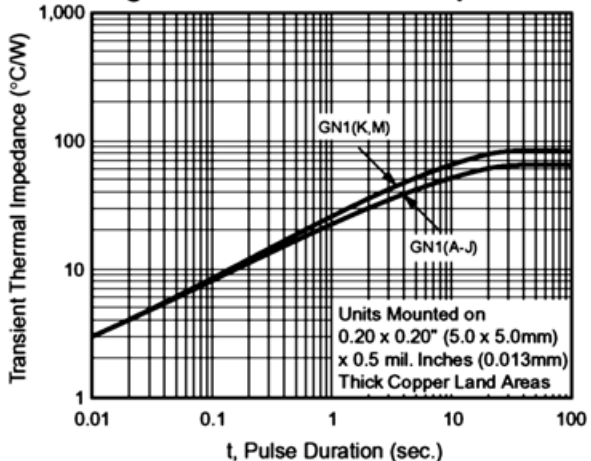


Fig. 6 – Transient Thermal Impedance



Disclaimer

Information furnished by Silicon Standard Corporation is believed to be accurate and reliable. However, Silicon Standard Corporation makes no guarantee or warranty, expressed or implied, as to the reliability, accuracy, timeliness or completeness of such information and assumes no responsibility for its use, or for infringement of any patent or other intellectual property rights of third parties that may result from its use. Silicon Standard reserves the right to make changes as it deems necessary to any products described herein for any reason, including without limitation enhancement in reliability, functionality or design. No license is granted, whether expressly or by implication, in relation to the use of any products described herein or to the use of any information provided herein, under any patent or other intellectual property rights of Silicon Standard Corporation or any third parties.