

GN1A thru GN1M

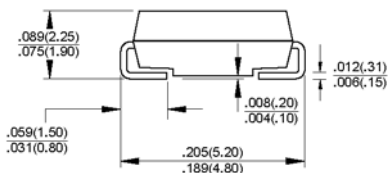
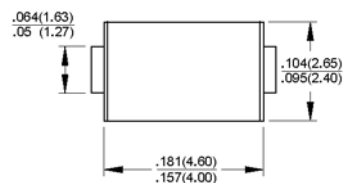
Surface Mount Glass Passivated Rectifiers
Reverse Voltage 50 to 1000 Volts Forward Current 1.0 Ampere

Features

- ◆ 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



DO-214AC (SMA)



Dimensions in inches and (millimeters)

Mechanical Data

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

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbols	GN1A	GN1B	GN1D	GN1G	GN1J	GN1K	GN1M	Units
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current (see fig.1)	$I_{F(AV)}$	1.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load(JEDEC Method) $T_L=110^\circ\text{C}$	I_{FSM}	40.0				30.0			Amps
Maximum instantaneous forward voltage at 1.0A	V_F	1.10							Volts
Maximum DC reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=125^\circ\text{C}$	I_R	1.0				5.0			μA
Typical reverse recovery time at $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $t_r=0.25\text{A}$	t_{rr}	1.0							μS
Typical junction capacitance at 4.0V, 1MHz	C_J	12							pF
Typical thermal resistance (NOTE 1)	$R_{\theta JA}$	75				85			$^\circ\text{C/W}$
	$R_{\theta JL}$	27				30			
Operating junction temperature range	T_J	-55 to +150							$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +150							$^\circ\text{C}$

Notes: 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

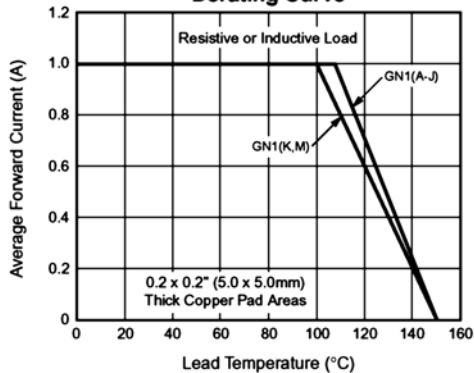


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

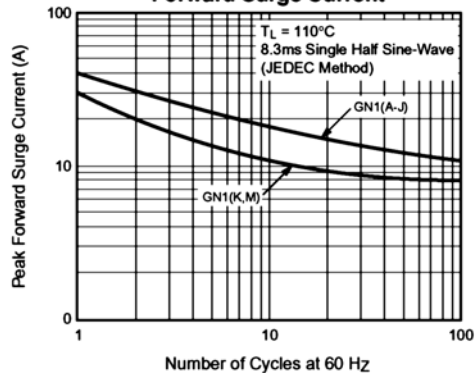


Fig. 3 – Typical Instantaneous Forward Characteristics

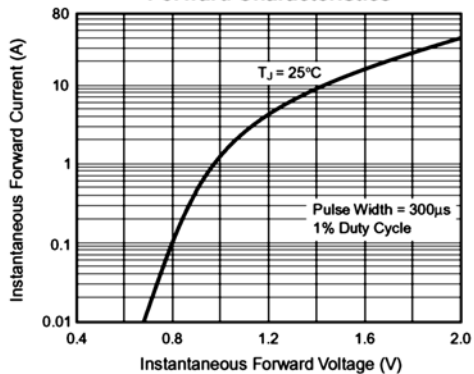


Fig. 4 – Typical Reverse Leakage Characteristics

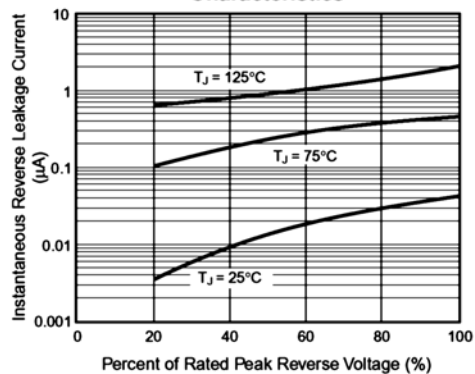


Fig. 5 – Typical Junction Capacitance

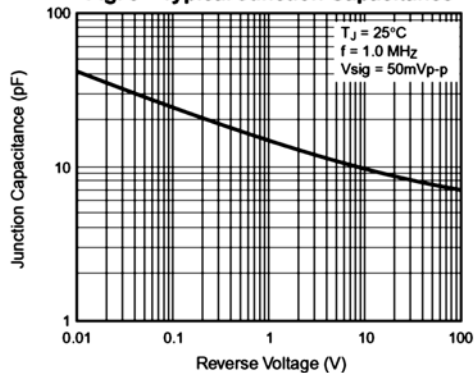


Fig. 6 – Transient Thermal Impedance

