Kingtronics®

GS1A THRU GS1M

SURFACE MOUNT GLASS PASSIVATED JUNCTION RECTIFIER

REVERSE VOLTAGE 50 to 1000 Volts **FORWARD CURRENT** 1.0 Ampere

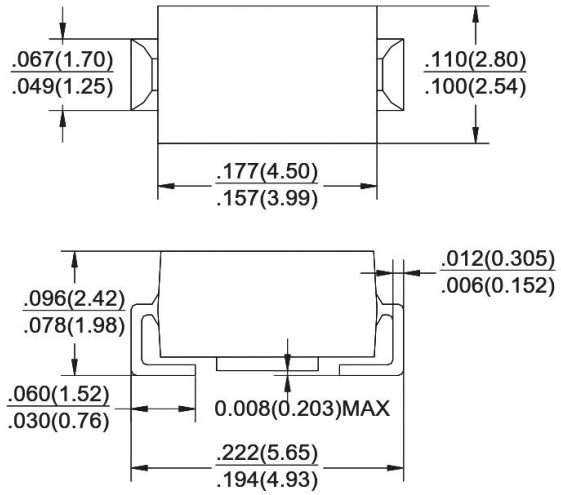
FEATURES

For surface mounted applications
Glass passivated junction
Low profile package
Built-in strain relief, ideal for automated placement
Plastic package has underwrites laboratory flammability Classification 94V-0
High temperature soldering guaranteed: 250℃/10 second at terminals

MECHANICAL DATA

Case: JEDED SMA-J (DO-214AC) molded plastic
Terminals: Plated axial lead solderable per MIL-STD-750, method 2026
Polarity: Color band denotes cathode end
Mounting position: Any

SMA - J (DO-214AC)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified , Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load derate current by 20%

PARAMETER		SYMBOL	GS1A	GS1B	GS1D	GS1G	GS1J	GS1K	GS1M	UNIT
Maximum Recurrent 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							Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC method) T_L=90℃		I_{FSM}	30							Amps
Maximum Instantaneous Forward Voltage at 1.0A		V_F	1.1							Volts
Maximum Reverse Current at Rated DC Blocking Voltage	T_A = 25℃	I_R	5.0							uA
	T_A = 125℃		50							
Typical Junction Capacitance (NOTE 1)		$R_{\theta JA}$	50							℃/W
		$R_{\theta JL}$	90							
Typical Thermal Resistance (NOTE 2)		t_{rr}	1.8							μs
Operating and Storage Temperature Range		T_J,T_{stg}	-55 to +150							℃

1- Thermal resistance from Junction to ambient and from junction to lead mounted on 0.2×0.2″ (5.0 × 5.0mm) copper pad areas.

2- Reverse recovery test condition: I_F=0.5A, I_R=1.0A, Irr=0.25A.

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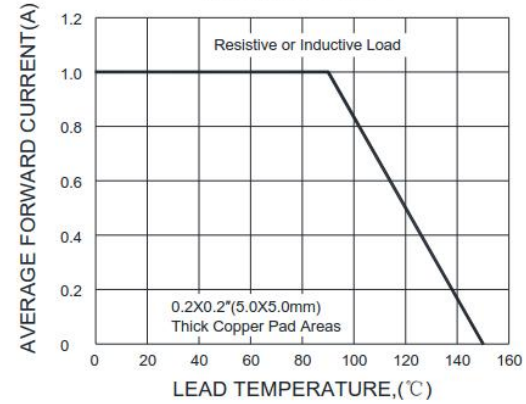
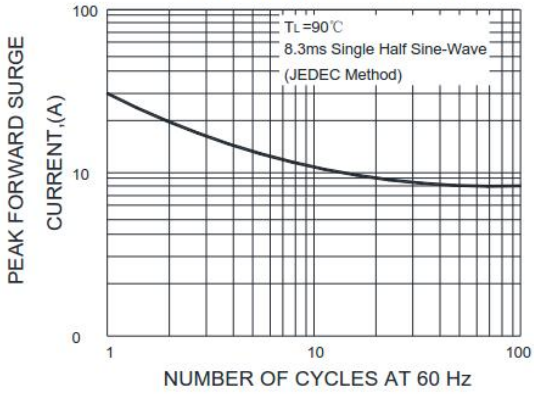
RATINGS AND CHARACTERISTIC CURVES

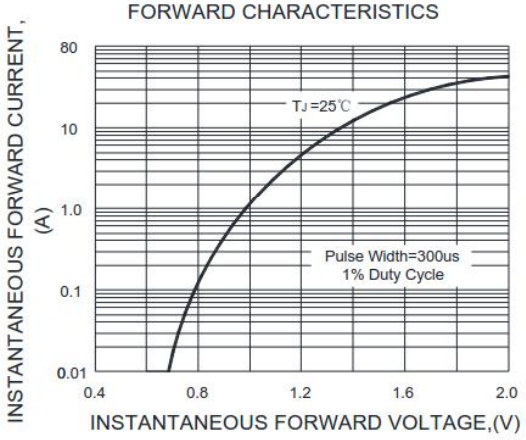
F1G.1-FORWARD CURRENT DERATING CURVE



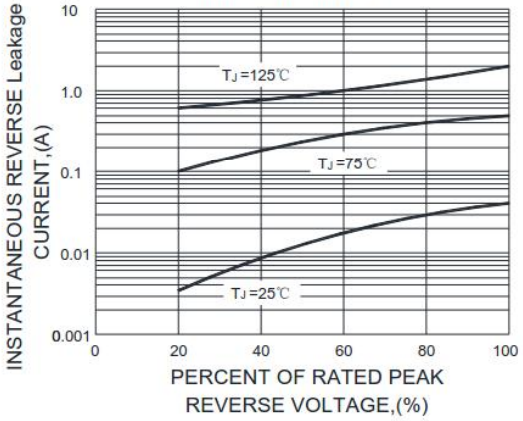
F1G.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



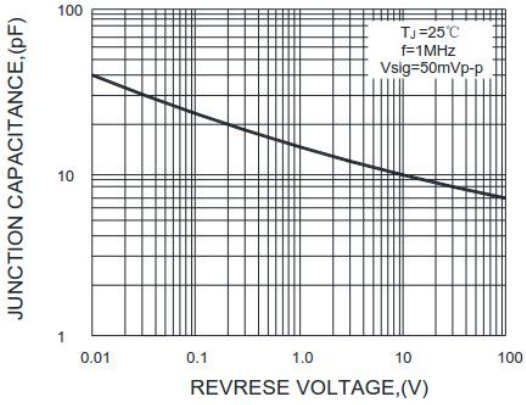
F1G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



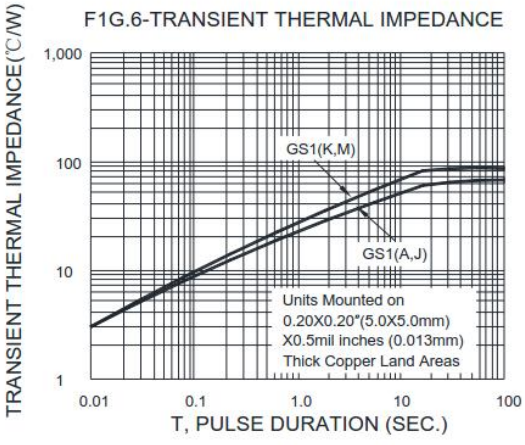
F1G.4-TYPICAL REVERSE CHARACTERISTICS



F1G.5-TYPICAL JUNCTION CAPACITANCE



F1G.6-TRANSIENT THERMAL IMPEDANCE



Note: Specifications are subject to change without notice.