

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°C/10 second at terminals

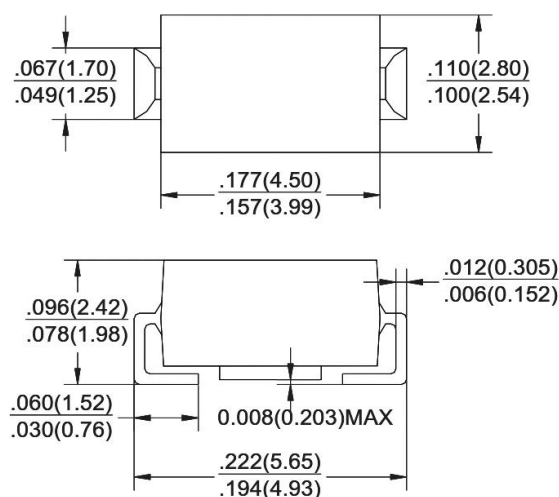
MECHANICAL DATA

- 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

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

**Ratings at 25°C ambient temperature unless otherwise specified ,
Single phase, half wave, 60Hz, resistive or inductive load.**

For capacitive load derate current by 20%

SMA - J (DO-214AC)**Dimensions in inches and (millimeters)**

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) $T_L=90^\circ\text{C}$	I_{FSM}	30							Amps
Maximum Instantaneous Forward Voltage at 1.0A	V_F	1.1							Volts
Maximum Reverse Current at Rated DC Blocking Voltage	I_R	$T_A = 25^\circ\text{C}$						5.0	uA
		$T_A = 125^\circ\text{C}$						50	
Typical Junction Capacitance (NOTE 1)	$R_{\theta JA}$	50							°C/W
	$R_{\theta JL}$	90							
Typical Thermal Resistance (NOTE 2)	t_{tr}	1.8							μs
Operating and Storage Temperature Range	T_J, T_{stg}	-55 to +150							°C

1- Thermal resistance from Junction to ambient and from junction to lead mounted on 0.2x0.2" (5.0 x 5.0mm) copper pad areas.

2- Reverse recovery test condition: $I_F=0.5A$, $I_R=1.0A$, $I_{rr}=0.25A$.

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RATINGS AND CHARACTERISTIC CURVES

FIG.1-FORWARD CURRENT DERATING CURVE

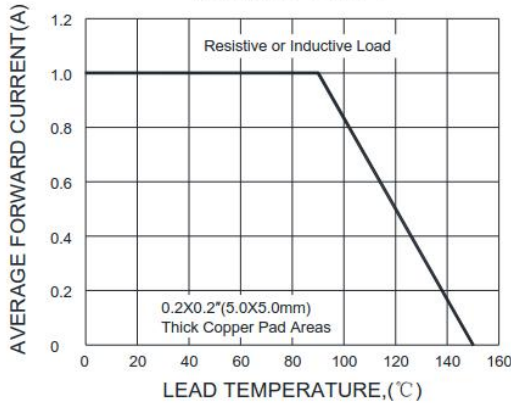


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

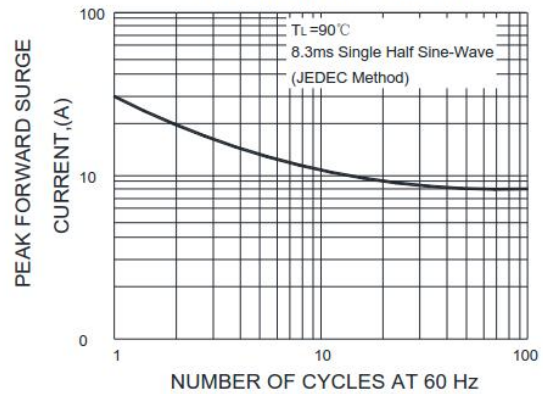


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

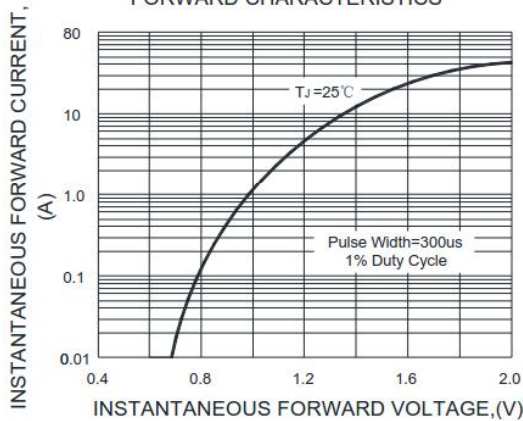


FIG.4-TYPICAL REVERSE CHARACTERISTICS

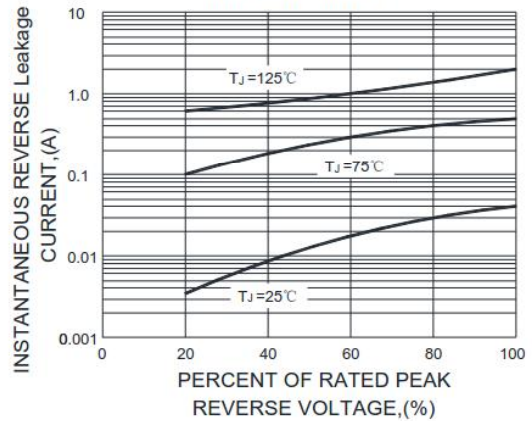


FIG.5-TYPICAL JUNCTION CAPACITANCE

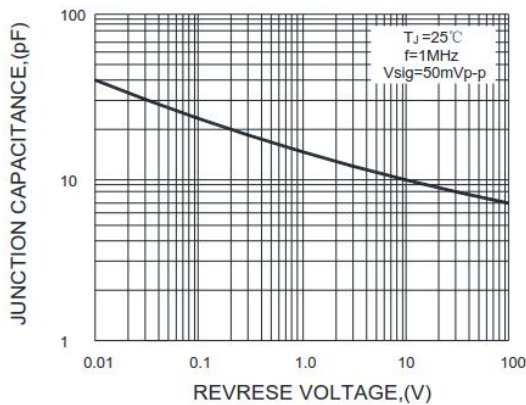
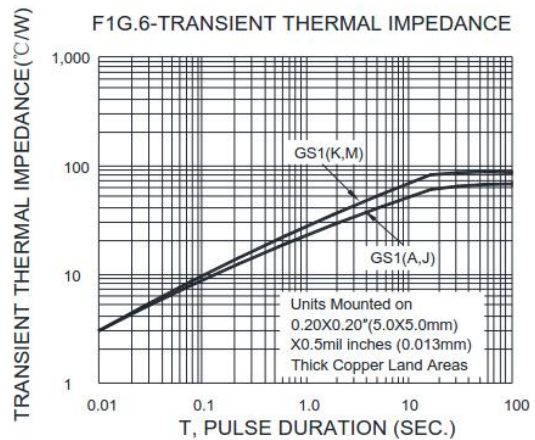


FIG.6-TRANSIENT THERMAL IMPEDANCE



Note: Specifications are subject to change without notice.

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