

Kingtronics®

GS2AA THRU GS2MA

SURFACE MOUNT GLASS PASSIVATED RECTIFIER

REVERSE VOLTAGE 50 to 1000 Volts FORWARD CURRENT 2.0 Ampere

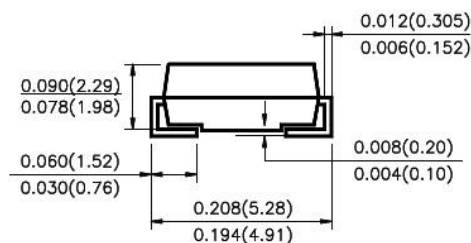
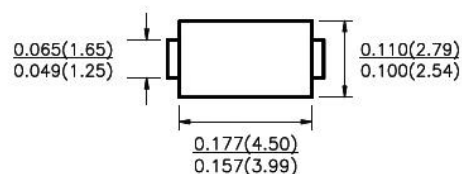
FEATURES

- Plastic package has underwrites 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 guaranteed
- 250°C/10 second at terminals

MECHANICAL DATA

- Case: JEDED DO-214AC molded plastic over glass passivated chip
- Terminals: Solder plated, solderable per MIL-STD-750, method 2026
- Polarity: Color band denotes cathode end

DO-214AC (SMA)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified, Dimensions in inches and (millimeters)
MAXIMUM RATINGS & THERMAL CHARACTERISTICS

	SYMBOLS	GS2AA	GS2BA	GS2DA	GS2GA	GS2JA	GS2KA	GS2MA	UNIT
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 at $T_L = 100^\circ\text{C}$	$I_{F(AV)}$	2.0							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) $T_L = 100^\circ\text{C}$	I_{FSM}	50							Amps
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	53							°C/W
	$R_{\theta JL}$	16							
Operating junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150							°C

ELECTRICAL CHARACTERISTICS

	SYMBOLS	GS2AA	GS2BA	GS2DA	GS2GA	GS2JA	GS2KA	GS2MA	UNIT	
Maximum Instantaneous Forward Voltage at 1.5A	V_F	1.10							Volts	
Maximum DC Reverse Current at rated DC Blocking Voltage	$T_A = 25^\circ\text{C}$	I_R	5.0							uA
	$T_A = 125^\circ\text{C}$		200							
Typical Reverse Recovery Time at $I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A$	T_{rr}	2.5							us	
Typical junction capacitance at 4.0V, 1MHz	C_J	30							pF	

1- Thermal resistance from Junction to ambient and from junction to lead mounted on P.C.B. with $0.3 \times 0.3''$ ($8.0 \times 8.0\text{mm}$) copper pad areas.

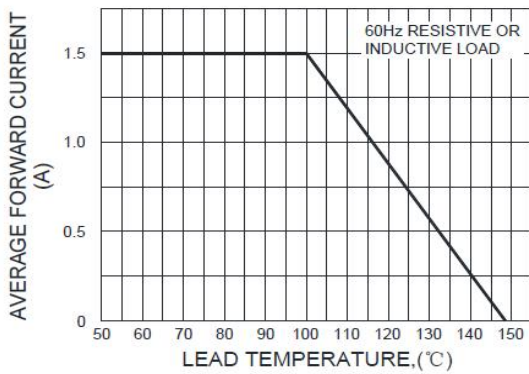
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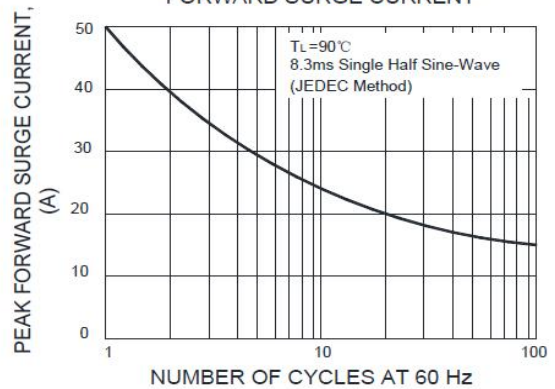
GS2AA THRU GS2MA

RATINGS AND CHARACTERISTIC CURVES

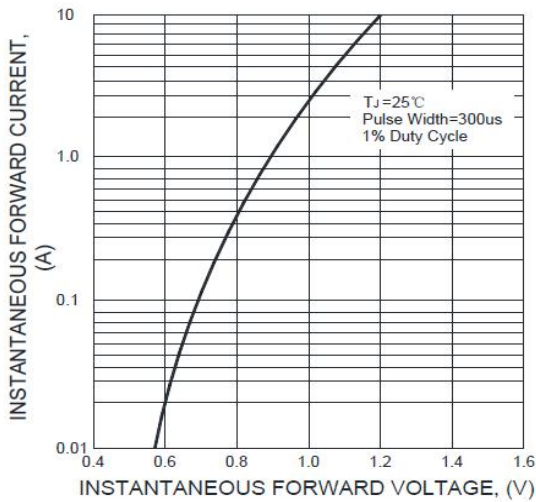
F1G.1-FORWARD CURRENT DERATING CURVE



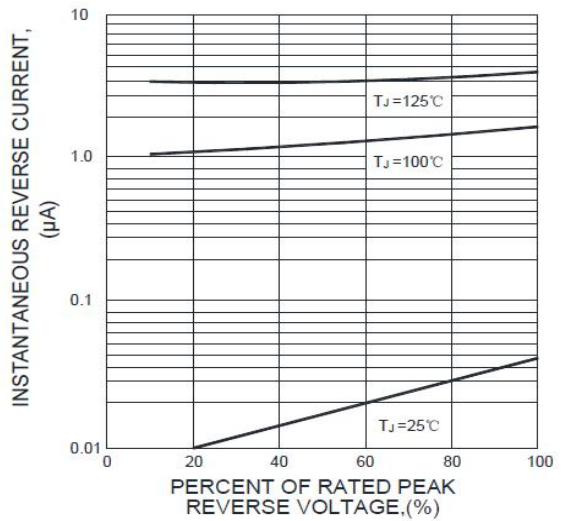
F1G.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



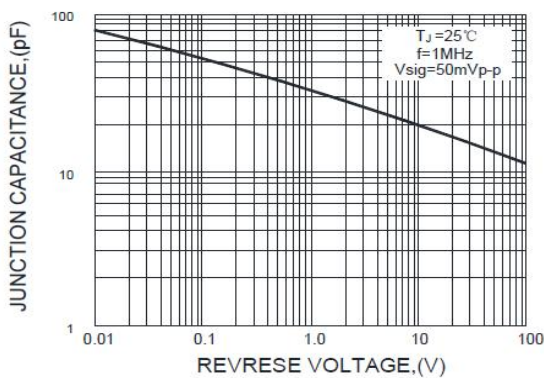
F1G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.4-TYPICAL REVERSE CHARACTERISTICS



F1G.5-TYPICAL JUNCTION CAPACITANCE



Note: Specifications are subject to change without notice.

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