GU1A THRU GU1M

SURFACE MOUNT ULTRAFAST SWITCHING RECTIFIER

VOLTAGE: 50 to 1000V **CURRENT: 1.0A**

GULF SEMI

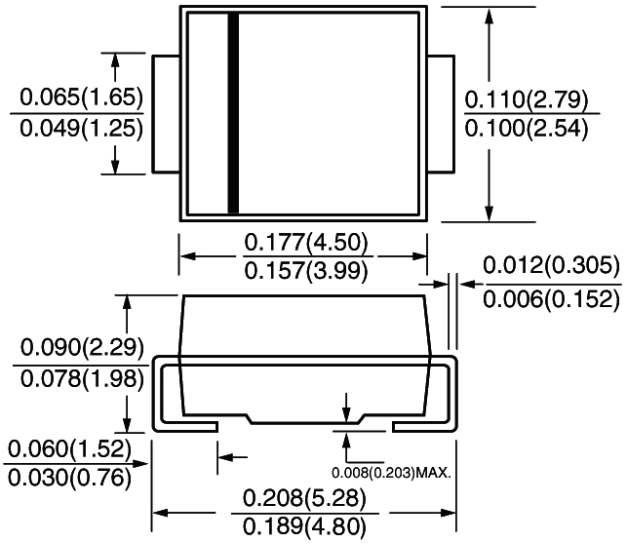
FEATURE

Ideal for surface mount pick and place application
Low profile package
Built-in strain relief
High surge capability
High temperature soldering guaranteed
260℃/10sec/at terminals
Glass passivated chip
Fast recovery time for high efficiency

MECHANICAL DATA

Terminal：Solder plated, solderable per J-STD-002
Case：Molded with UL-94 class V-0 recognized Flame Retardant Epoxy
Polarity：color band denotes cathode

SMA / DO-214AC



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25℃, unless otherwise stated)

	SYMBOL	GU 1A	GU 1B	GU 1D	GU 1G	GU 1J	GU 1K	GU 1M	units
Maximum Recurrent Peak Reverse Voltage	Vrrm	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	Vrms	35	70	140	280	420	560	700	V
Maximum DC blocking Voltage	Vdc	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current 3/8″ lead length	If(av)	1.0							A
Peak Forward Surge Current 8.3ms single half sine- wave superimposed on rated load	Ifsm	30							A
Maximum Forward Voltage at rated forward current	Vf	1.0			1.4	1.7			V
Maximum DC Reverse Current Ta =25℃ at rated DC blocking voltage Ta =125℃	Ir	10 300							μA μA
Maximum Reverse Recovery Time (Note1)	Trr	50				75			nS
Typical Junction Capacitance (Note 2)	Cj	15							pF
Typical Thermal Resistance (Note 3)	Rth(jl)	30							℃/W
Storage and Operating Junction Temperature	Tstg, Tj	-50 to +150							℃

Note：

1. Reverse Recovery Condition If =0.5A, Ir =1.0A, Irr =0.25A
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Thermal Resistance from Junction to terminal mounted on 5×5mm copper pad area

RATINGS AND CHARACTERISTIC CURVES GU1A THRU GU1M

Fig. 1 – Forward Current Derating Curve

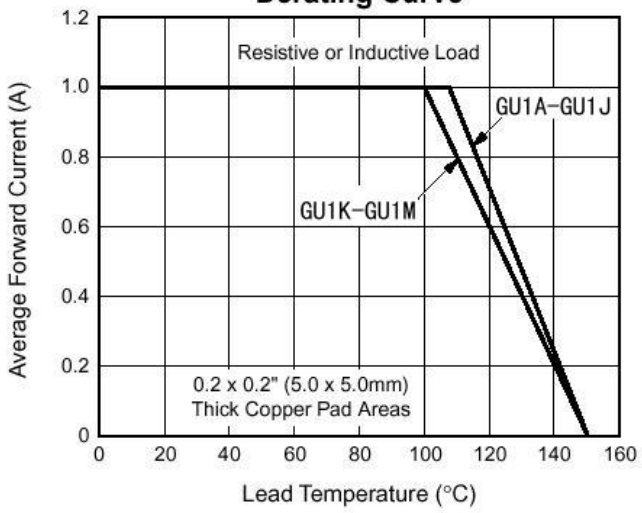


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

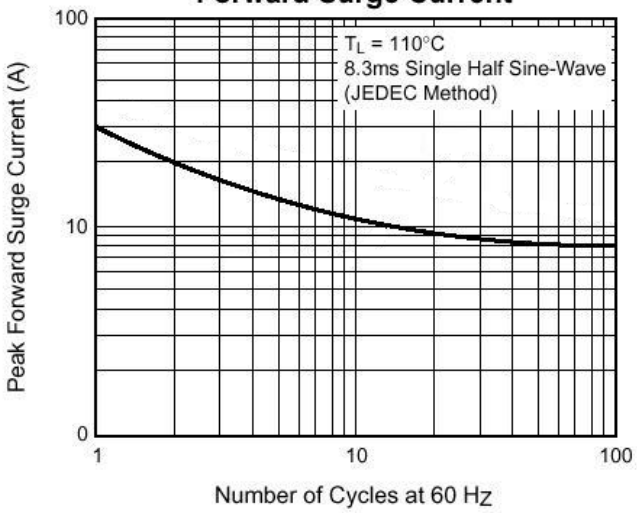


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

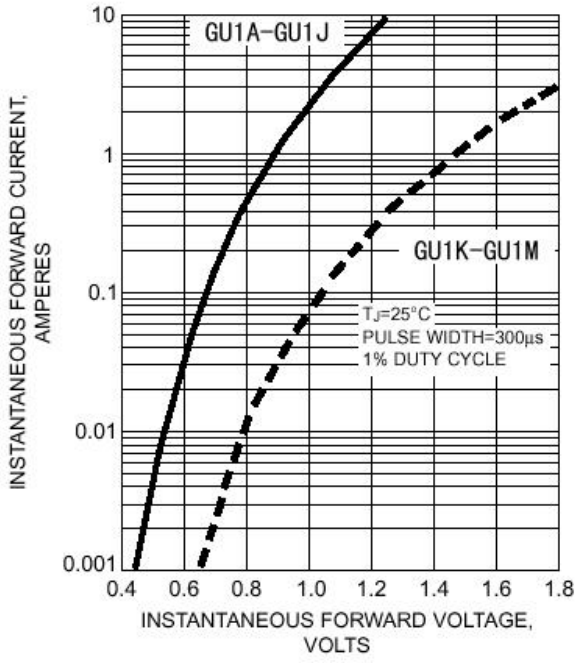


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

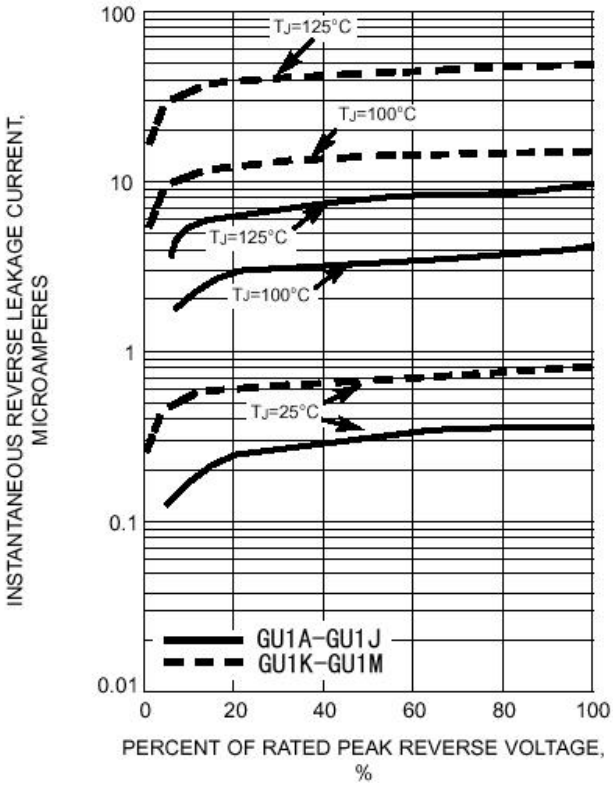


FIG. 5 - TYPICAL JUNCTION CAPACITANCE