

GU1A THRU GU1M

SURFACE MOUNT ULTRAFAST SWITCHING RECTIFIER

VOLTAGE: 50 to 1000V

CURRENT: 1.0A

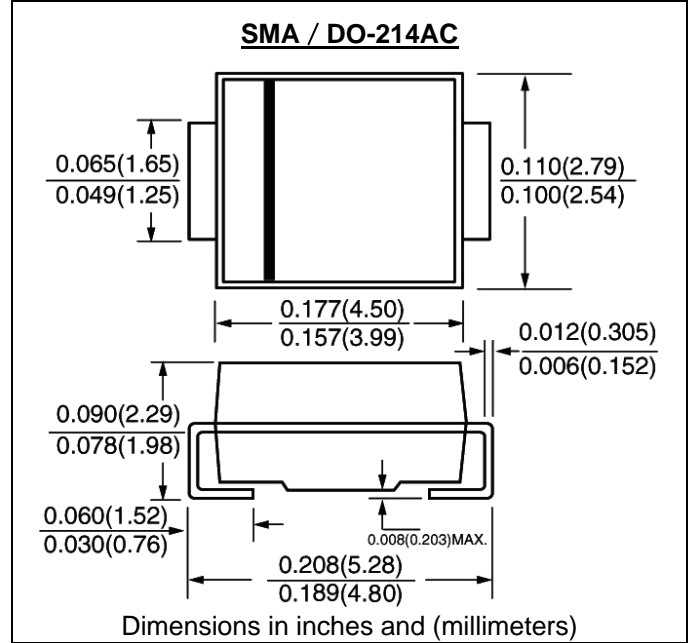


FEATURE

- Ideal for surface mount pick and place application
- Low profile package
- Built-in strain relief
- High surge capability
- High temperature soldering guaranteed
- 260°C/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



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOL	GU 1A	GU 1B	GU 1D	GU 1G	GU 1J	GU 1K	GU 1M	units
Maximum Recurrent Peak Reverse Voltage	V _{rrm}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{rms}	35	70	140	280	420	560	700	V
Maximum DC blocking Voltage	V _{dc}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current 3/8" lead length	I _{f(av)}	1.0							A
Peak Forward Surge Current 8.3ms single half sine- wave superimposed on rated load	I _{fsm}	30							A
Maximum Forward Voltage at rated forward current	V _f	1.0		1.4		1.7			V
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =125°C	I _r	10			300				μ A
Maximum Reverse Recovery Time (Note 1)	T _{rr}	50				75			nS
Typical Junction Capacitance (Note 2)	C _j	15							pF
Typical Thermal Resistance (Note 3)	R _{th(jl)}	30							°C/W
Storage and Operating Junction Temperature	T _{stg} , T _j	-50 to +150							°C

Note:

- Reverse Recovery Condition I_f =0.5A, I_r =1.0A, I_{rr} =0.25A
- Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
- 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

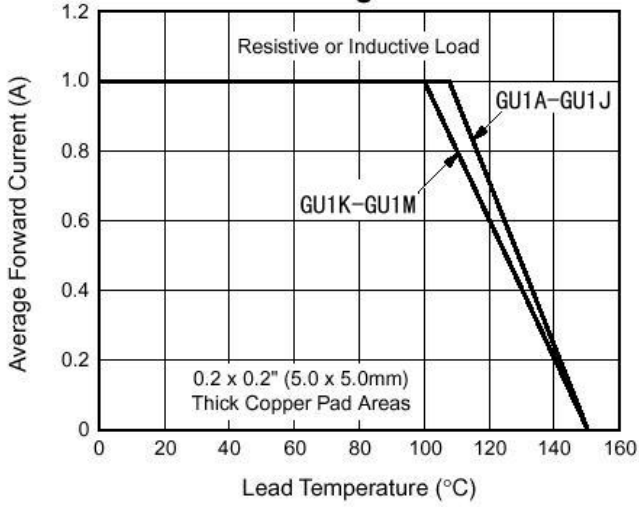


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

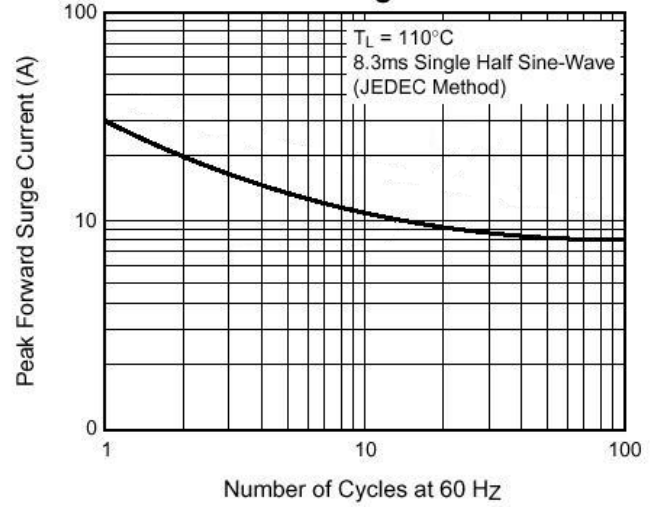


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

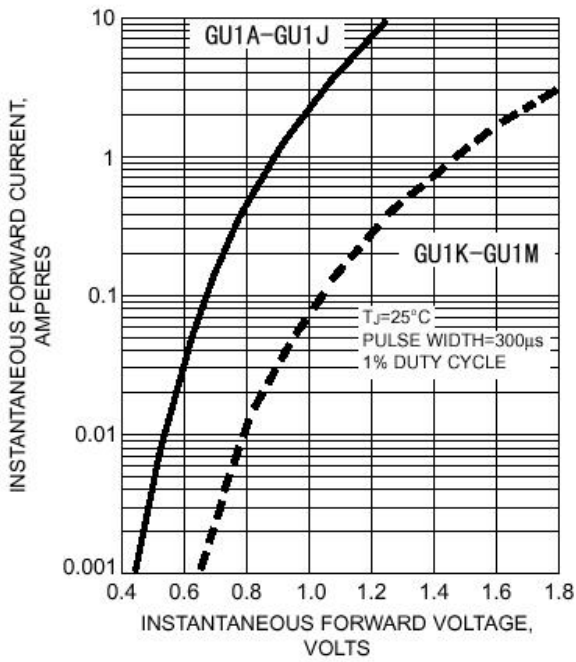


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

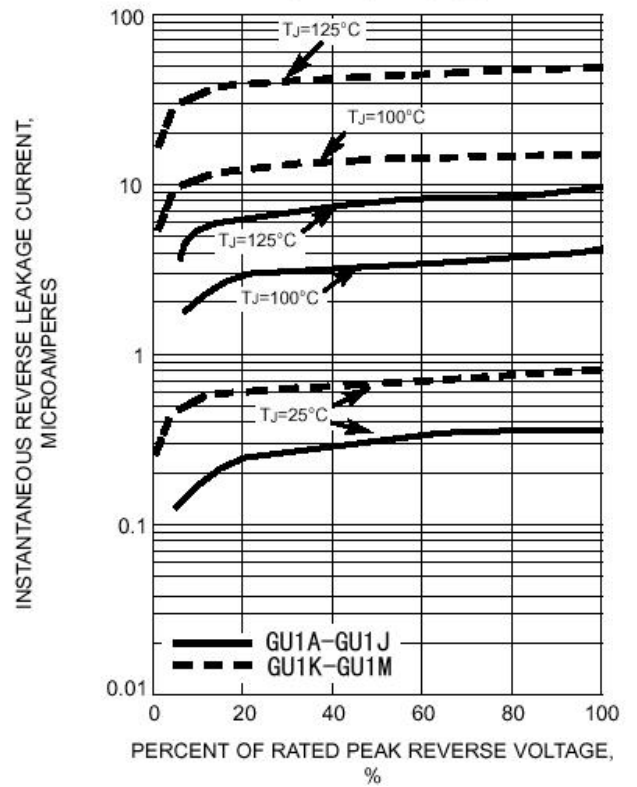


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

