

GU1A THRU GU1M

SURFACE MOUNT SWITCHING RECTIFIER

VOLTAGE: 50 TO 1000V

CURRENT: 1.0A



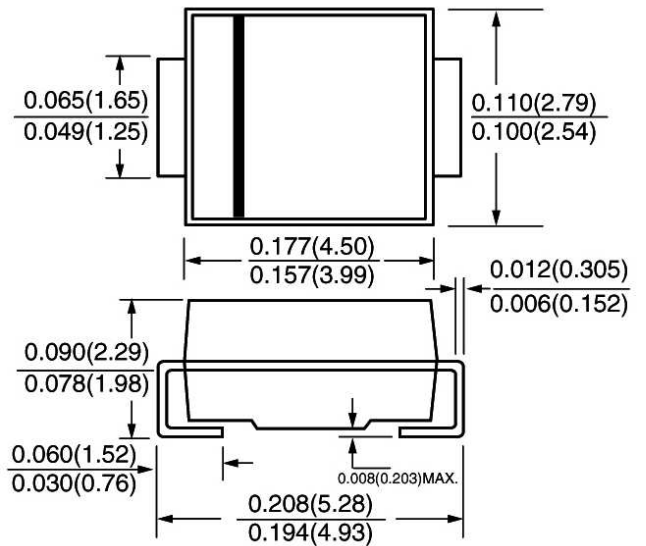
FEATURE

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: Plated axial leads solderable per
MIL-STD 202E, method 208C
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°C, unless otherwise stated,
for capacitive load, derate current by 20%)

	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 at T _L =110°C	If(av)	1.0							A
Peak Forward Surge Current 8.3ms single half sine- wave superimposed on rated load	Ifsm	30.0							A
Maximum Forward Voltage at rated forward current	Vf	1.0			1.4	1.7			V
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =100°C	Ir	10.0 500.0							μ A μ A
Maximum Reverse Recovery Time (Note1)	Trr	50				75			nS
Typical Junction Capacitance (Note 2)	Cj	15.0							pF
Typical Thermal Resistance (Note 3)	R(jl)	30.0							°C/W
Storage and Operating Junction Temperature	Tstg, Tj	-50 to +150							°C

Note:

1. Reverse Recovery Condition I_f =0.5A, I_r =1.0A, I_{rr} =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 area¹

RATINGS AND CHARACTERISTIC CURVES GU1A THRU GU1M

Fig. 1 – Forward Current Derating Curve

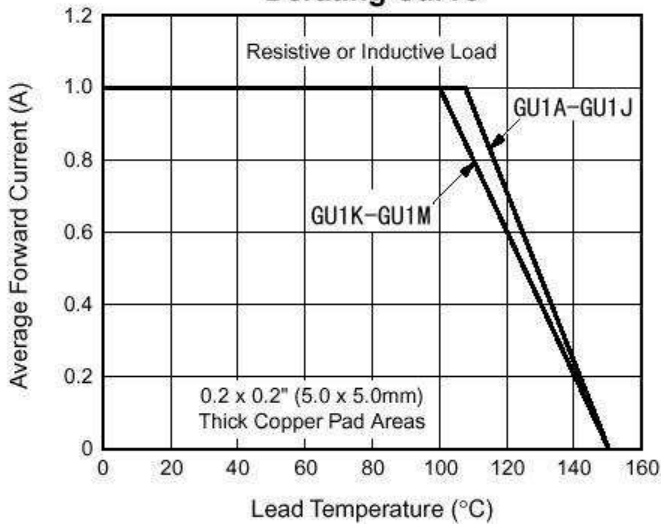


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

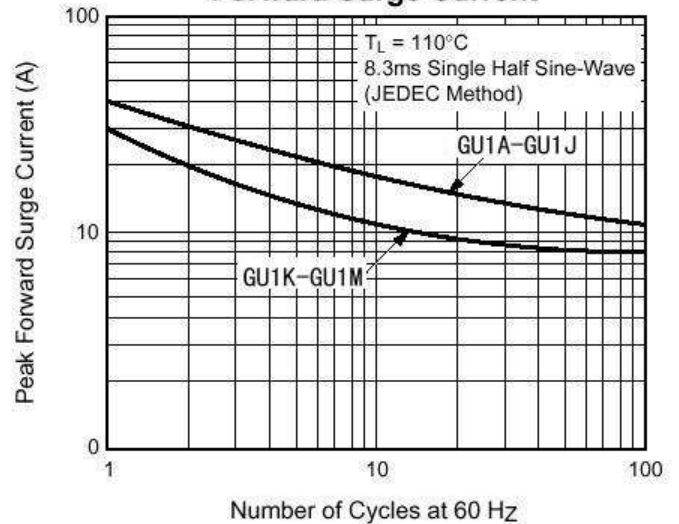


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

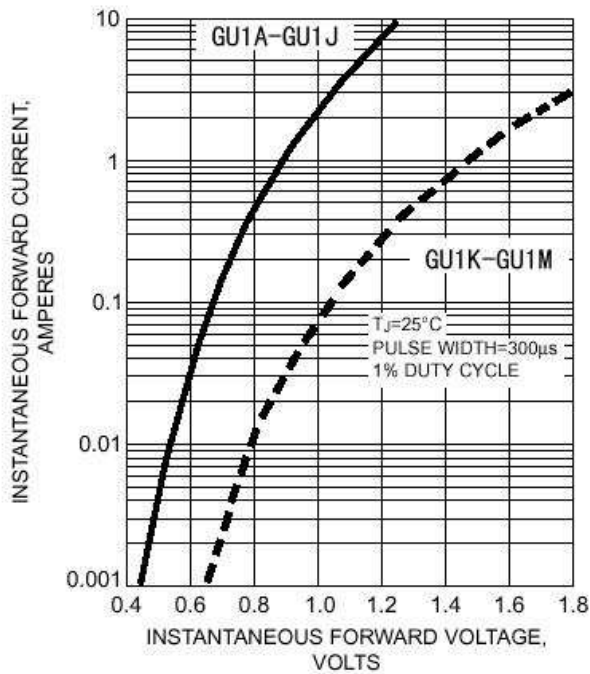


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

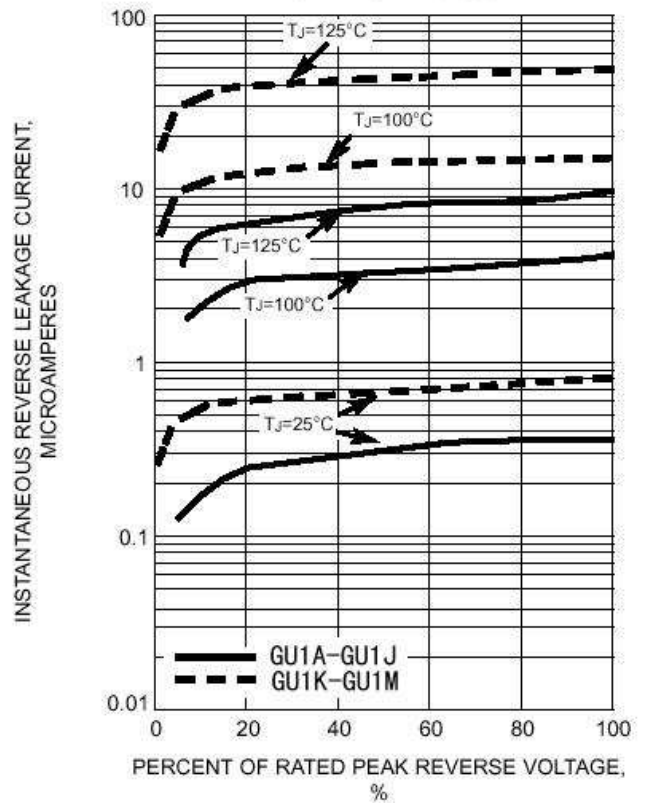


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

