

GU3A THRU GU3M

SURFACE MOUNT FAST ULTRAFAST RECTIFIER

VOLTAGE: 50 TO 1000V

CURRENT: 3.0A

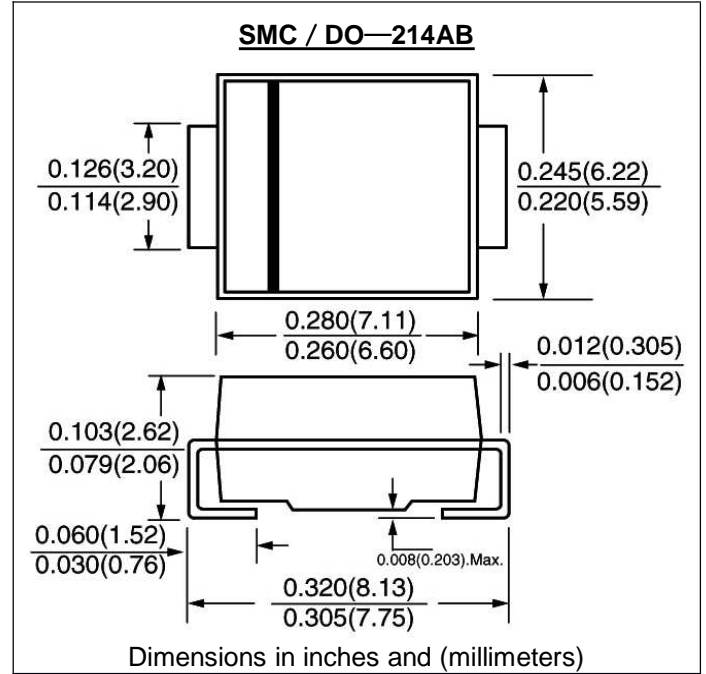


FEATURE

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



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 3A	GU 3B	GU 3D	GU 3G	GU 3J	GU 3K	GU 3M	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 at T _L = 75°C	I _{f(av)}	3.0							A
Peak Forward Surge Current 8.3ms single half sine- wave superimposed on rated load	I _{fsm}	100.0							A
Maximum Instantaneous 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	10.0 500.0							μA μA
Maximum Reverse Recovery Time (Note 1)	T _{rr}	50			75			nS	
Typical Junction Capacitance (Note 2)	C _j	75			50			pF	
Typical Thermal Resistance (Note 3)	R(jl)	15							°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 GU3A THRU GU3M

FIG. 1 - FORWARD CURRENT DERATING CURVE

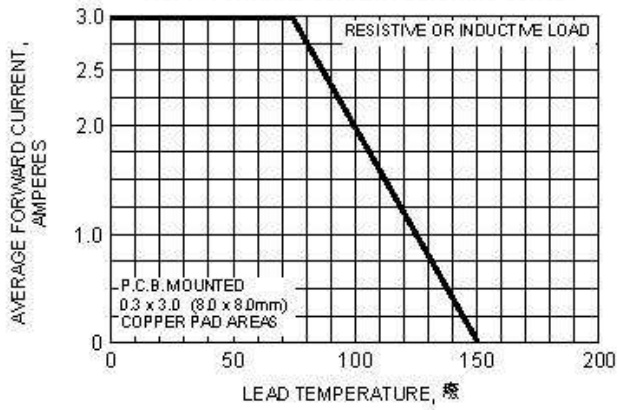


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

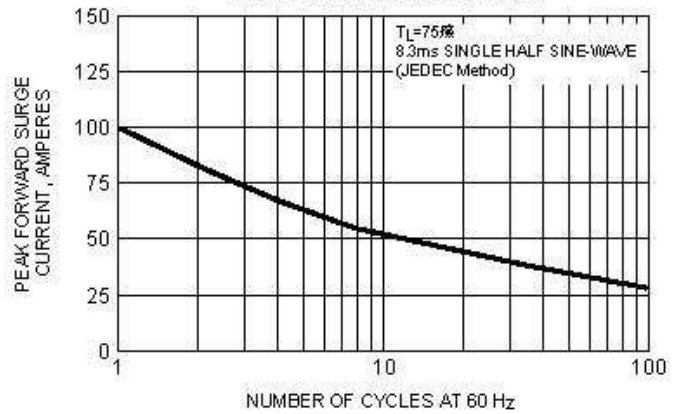


FIG. 3 - TYPICAL FORWARD CHARACTERISTICS

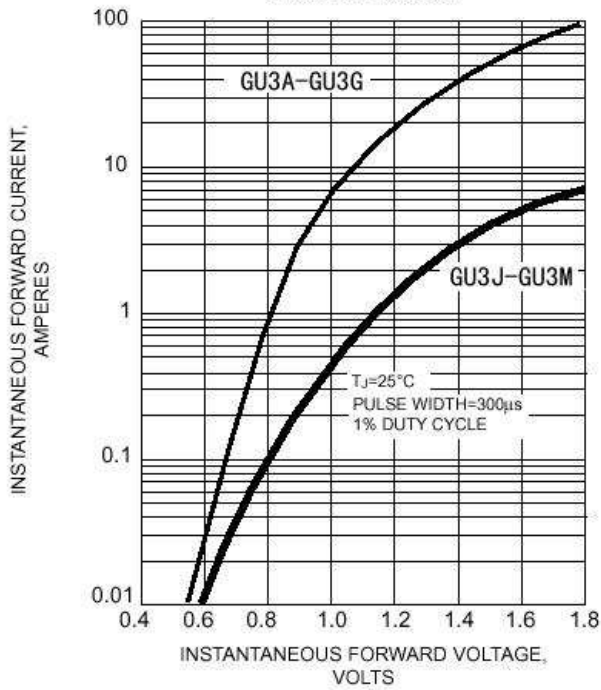


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

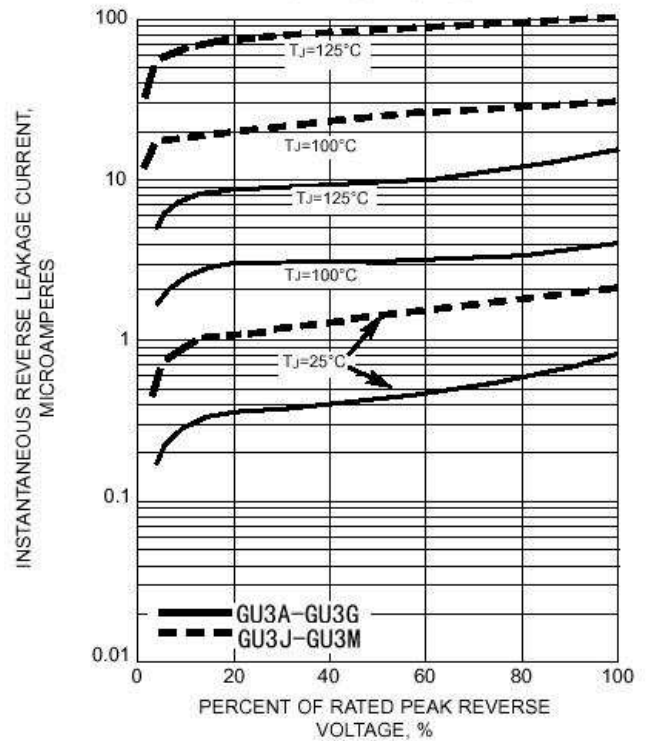


FIG. 5 - TYPICAL TRANSIENT THERMAL IMPEDANCE

