GU1Q-B

SURFACE MOUNT
SWITCHING RECTIFIER

VOLTAGE：1200V **CURRENT： 1.0A**

GULF SEMI

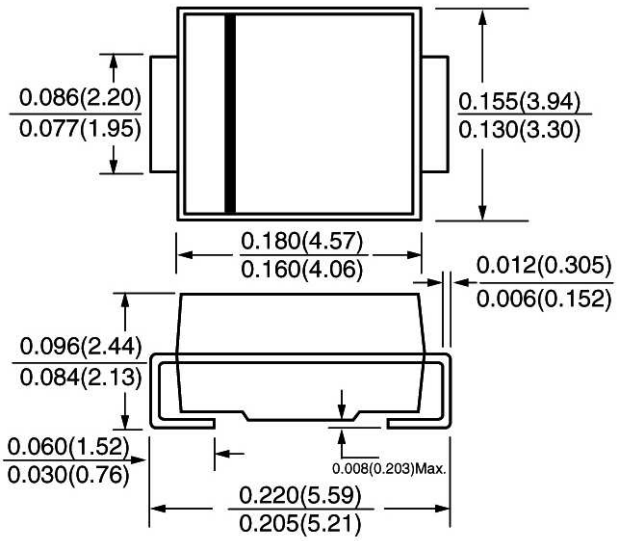
FEATURE

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：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

SMB / DO-214AA



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, for capacitive load, derate current by 20%)

	SYMBOL	GU1Q-B	units
Maximum Recurrent Peak Reverse Voltage	Vrrm	1200	V
Maximum RMS Voltage	Vrms	840	V
Maximum DC blocking Voltage	Vdc	1200	V
Maximum Average Forward Rectified Current 3/8″lead length at T_L =100℃	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	1.9	V
Maximum DC Reverse Current Ta =25℃ at rated DC blocking voltage Ta =125℃	Ir	5.0 50.0	μA
Maximum Reverse Recovery Time (Note1)	Trr	75	nS
Typical Junction Capacitance (Note 2)	Cj	15.0	pF
Typical Thermal Resistance (Note 3)	Rth(jl)	25.0	℃/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 GU1Q-B

Fig. 1 – Forward Current Derating Curve

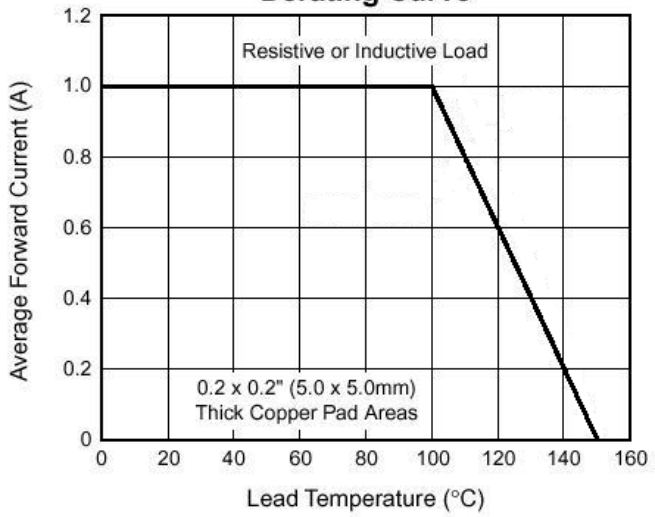


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

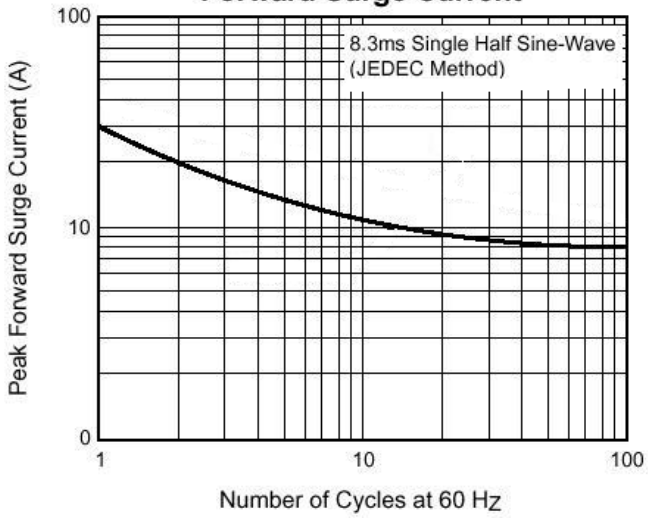


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

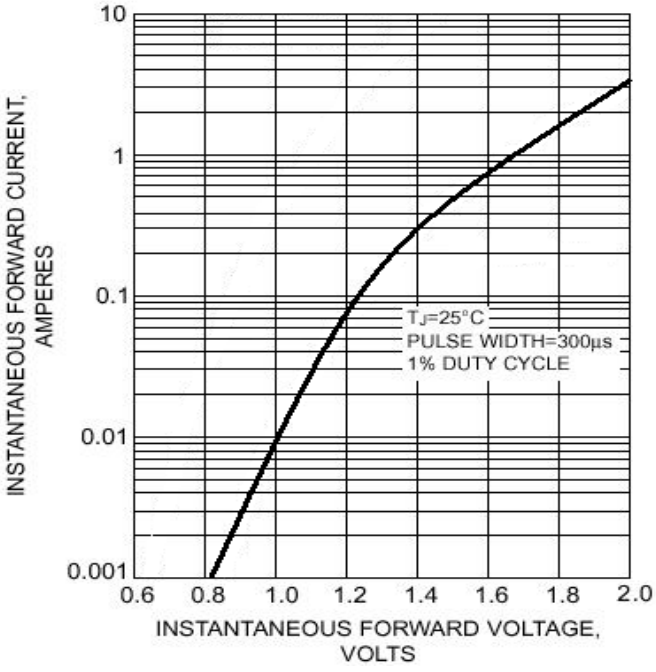


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

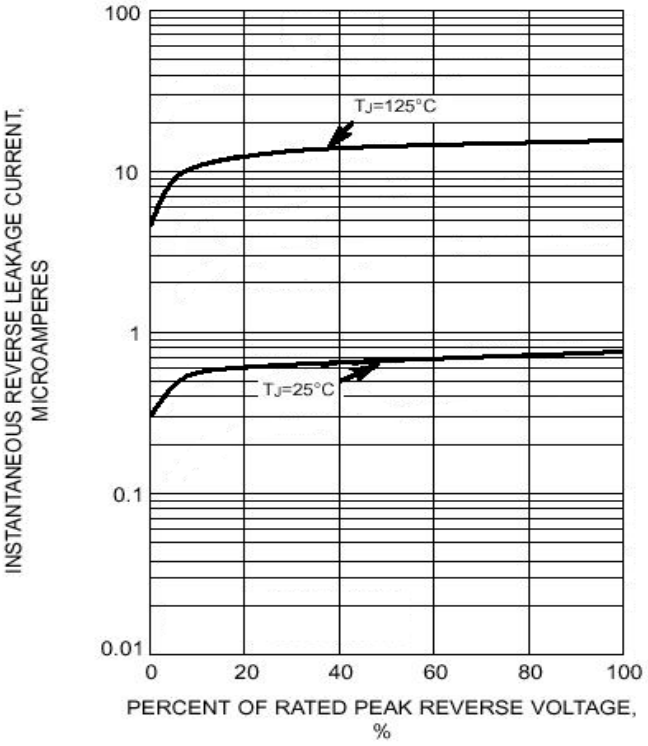


FIG. 5 - TYPICAL JUNCTION CAPACITANCE