SU1A THRU SU1M

SINTERED GLASS JUNCTION
SURFACE MOUNTED RECTIFIER

VOLTAGE：50 TO 1000V **CURRENT： 1.0A**

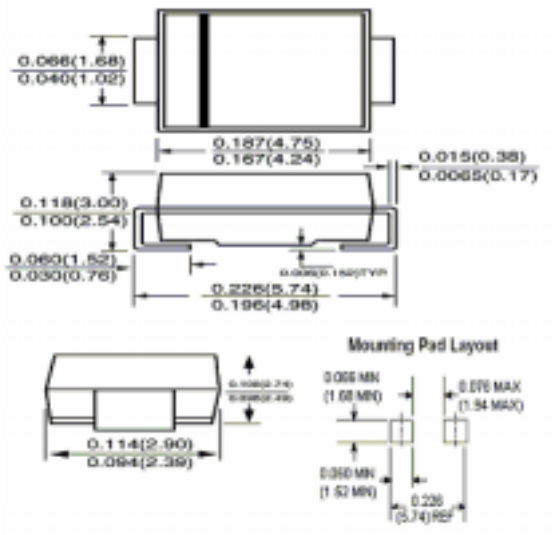
FEATURE

Ideal for surface mount automotive applications
High temperature metallurgically bonded construction
Capability of meeting environmental standard of MIL-S-19500
Fast switching for high efficiency
High temperature soldering guaranteed
450°C/5sec at terminal
Complete device submersible temperature of 265°C for 10 seconds in solder bath

MECHANICAL DATA

Terminal：Solder plated, solderable per MIL-STD 202, method 208C
Case：Molded with UL-94 class V-0 recognized Flame Retardant Epoxy over Glass
Polarity：color band denotes cathode end
Mounting position：any

GF1/DO-214BA



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

	SYMBOL	SU 1A	SU 1B	SU 1D	SU 1G	SU 1J	SU 1K	SU 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 T_L =120°C	If(av)	1.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	Ifsm	30.0							A
Maximum Forward Voltage at 1.0A	Vf	1.0			1.4	1.7			V
Maximum full load reverse current full cycle average Ta = 55°C	Ir(av)	50.0							μA
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =125°C	Ir	10.0 50.0							μA μA
Maximum Reverse Recovery Time (Note1)	Trr	50				75			nS
Typical Junction Capacitance (Note 2)	Cj	8.5							pF
Typical Thermal Resistance (Note 3)	$R(-)_{JA}$ $R(-)_{JL}$	85.0 28.0							°C / W
Storage and Operating Junction Temperature Range	Tstg, Tj	-65 to +175							°C

Note：

1. Reverse Recovery Condition If =0.5A, Ir =1.0A, Irr =0.25A
2. Measured at 1.0 MHz and applied Vr=4.0V
3. Thermal Resistance from Junction to Ambient and from junction to lead, P.C.B. Mounted on 0.2×0.2 " (5.0×5.0mm) copper pad areas[1]

RATINGS AND CHARACTERISTIC CURVES SU1A THRU SU1M

FIG. 1 - FORWARD CURRENT DERATING CURVE

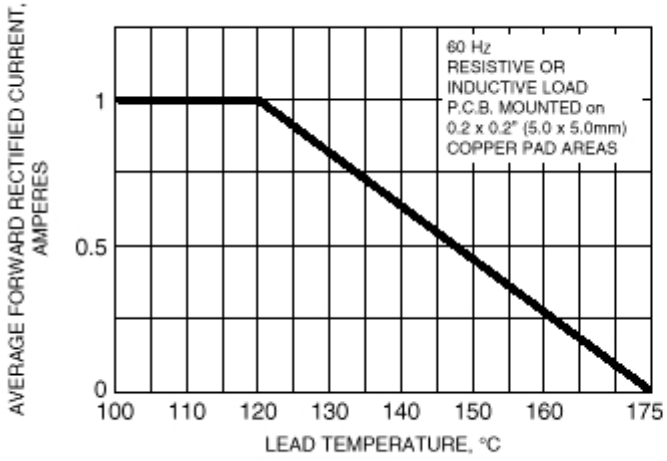


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

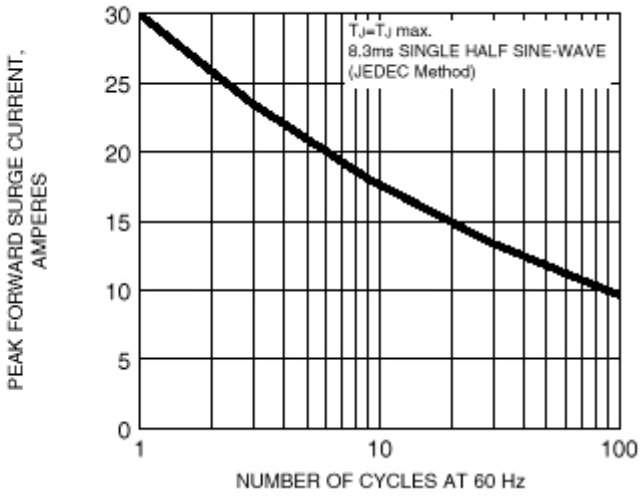


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

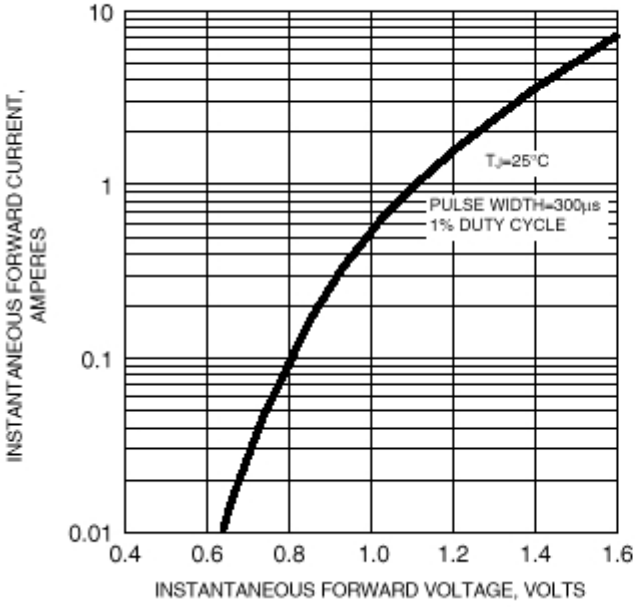


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

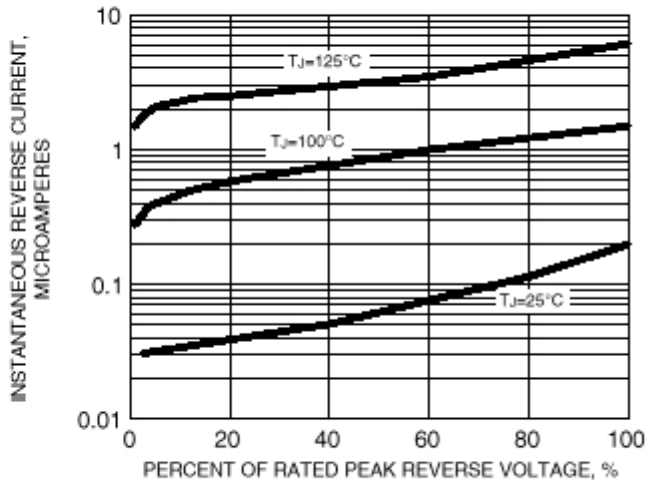


FIG. 5 - TYPICAL JUNCTION CAPACITANCE