GUF30A THRU GUF30M

SINTERED GLASS JUNCTION
FAST SWITCHING PLASTIC RECTIFIER

VOLTAGE:50 TO 1000V **CURRENT: 3.0A**

VOLTARISTECH INC.
POWER • PRECISION • INNOVATION

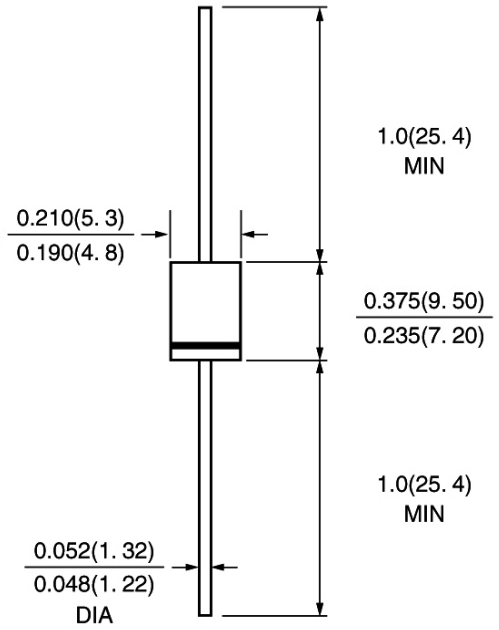
FEATURE

High temperature metallurgically bonded construction
Sintered glass cavity free junction
Capability of meeting environmental standard of MIL-S-19500
High temperature soldering guaranteed
350°C /10sec/0.375"lead length at 5 lbs tension
Operate at Ta =55°C with no thermal run away
Typical Ir<0.2μA
Low power loss, high efficient

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
Mounting position: any

DO-201AD



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)

	SYMBOL	GUF 30A	GUF 30B	GUF 30D	GUF 30F	GUF 30G	GUF 30J	GUF 30K	GUF 30M	units
Maximum Recurrent Peak Reverse Voltage	Vrrm	50	100	200	300	400	600	800	1000	V
Maximum RMS Voltage	Vrms	35	70	140	210	280	420	560	700	V
Maximum DC blocking Voltage	Vdc	50	100	200	300	400	600	800	1000	V
Maximum Average Forward Rectified Current 3/8"lead length at Ta =55°C	If(av)	3.0								A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	Ifsm	150								A
Maximum Forward Voltage at rated Forward Current and 25°C	Vf	1.1			1.4		1.7			V
Maximum full load reverse current full cycle average at 55°C Ambient	Ir(av)	100								μA
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =125°C	Ir	5 50								μA μA
Maximum Reverse Recovery Time (Note 1)	Trr	50					75			nS
Typical Junction Capacitance (Note 2)	Cj	17					15			pF
Typical Thermal Resistance (Note 3)	R(ja)	40					50			°C /W
Storage and Operating 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 reverse voltage of 4.0Vdc
3. Thermal Resistance from Junction to Ambient at 3/8"lead length, P.C. Board Mounted

1

FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE

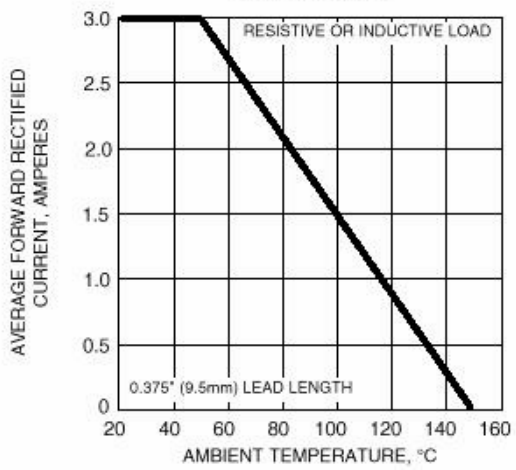


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

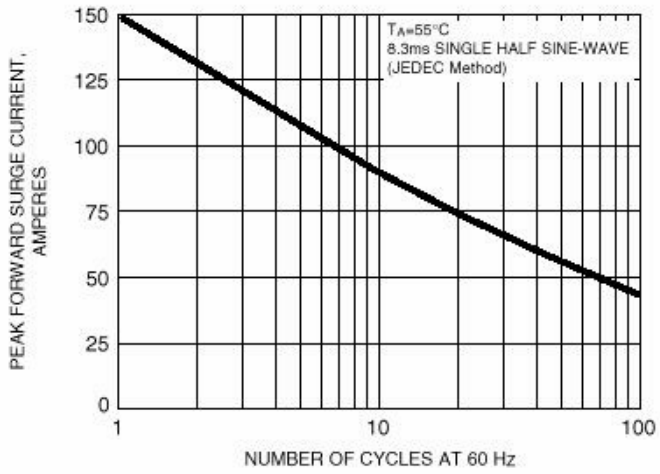


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

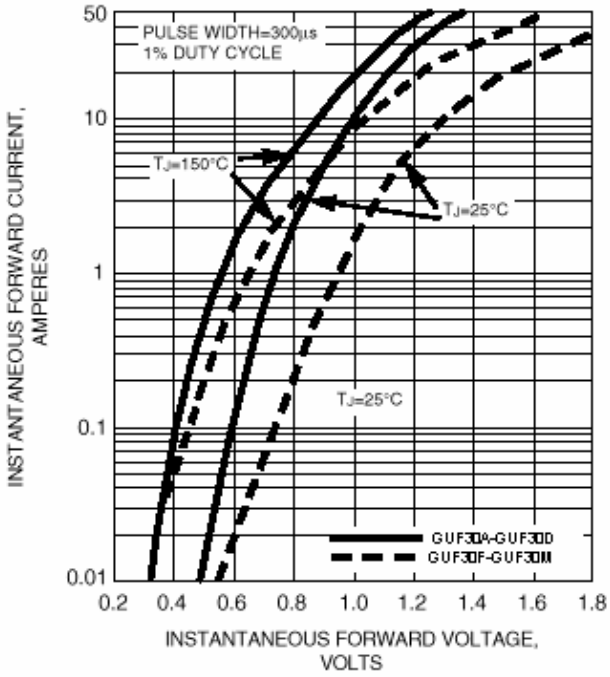


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

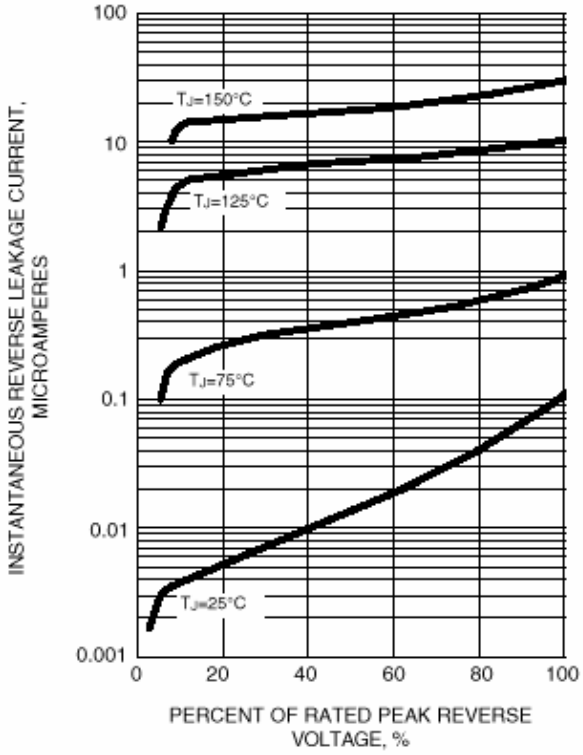


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

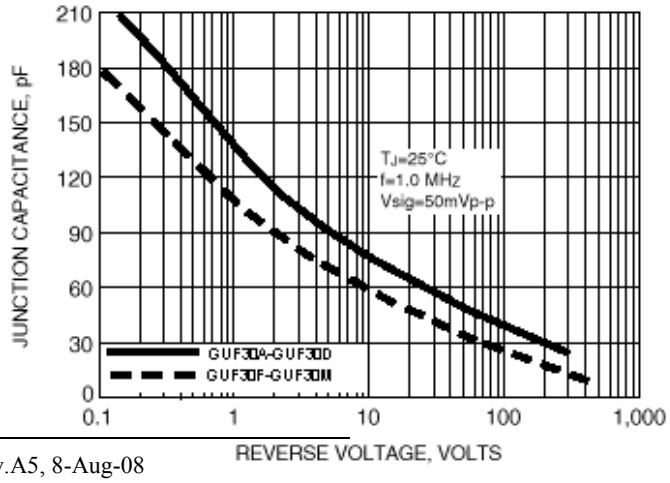
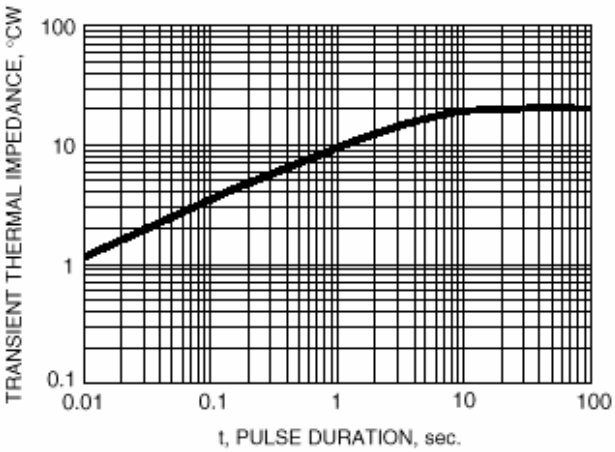



FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE