

GUF40A THRU GUF40M

**SINTERED GLASS JUNCTION
FAST SWITCHING PLASTIC RECTIFIER**
VOLTAGE:50 TO 1000V CURRENT:4.0A

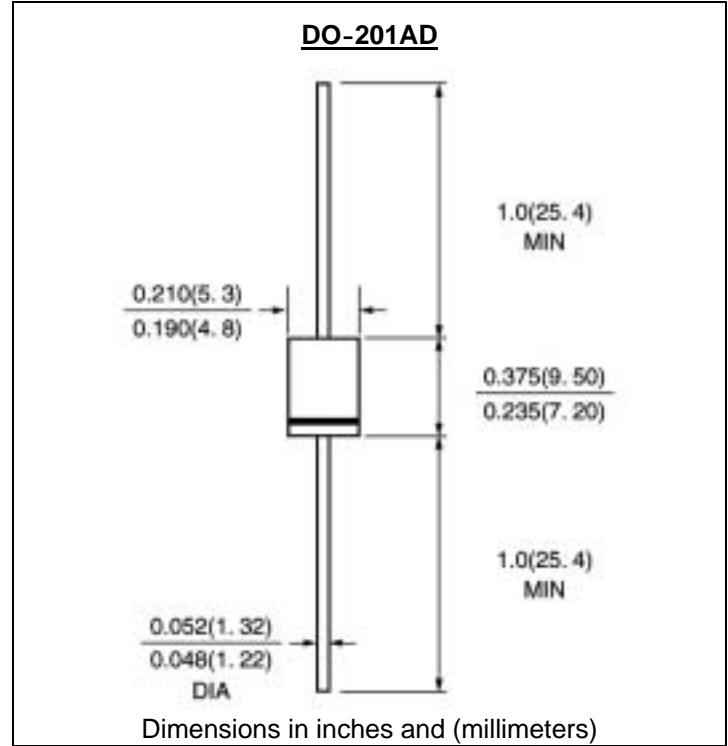


FEATURE

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



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

	SYMBOL	GUF 40A	GUF 40B	GUF 40D	GUF 40F	GUF 40G	GUF 40J	GUF 40K	GUF 40M	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 =35°C	If(av)	4.0								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	10								µA
		100								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:

- Reverse Recovery Condition If =0.5A, Ir =1.0A, Irr =0.25A
- Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
- Thermal Resistance from Junction to Ambient at 3/8"lead length, P.C. Board Mounted

RATINGS AND CHARACTERISTIC CURVES GUF40A THRU GUF40M

1

FIG. 1 - FORWARD CURRENT DERATING CURVE

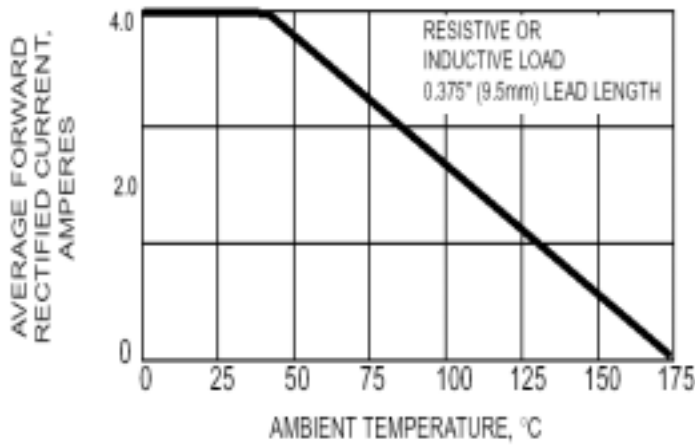


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

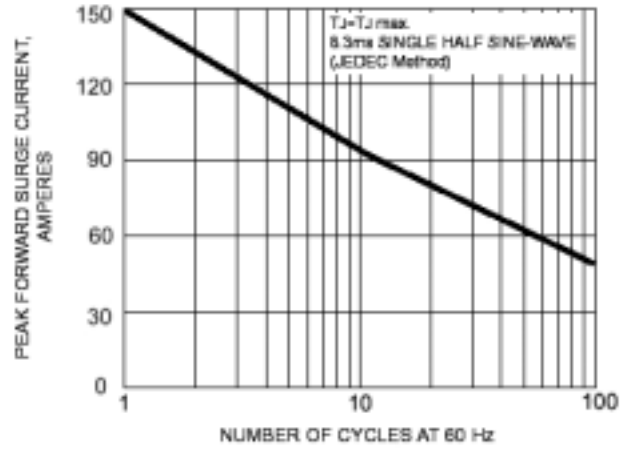


FIG. 3 - TYPICAL FORWARD CHARACTERISTICS

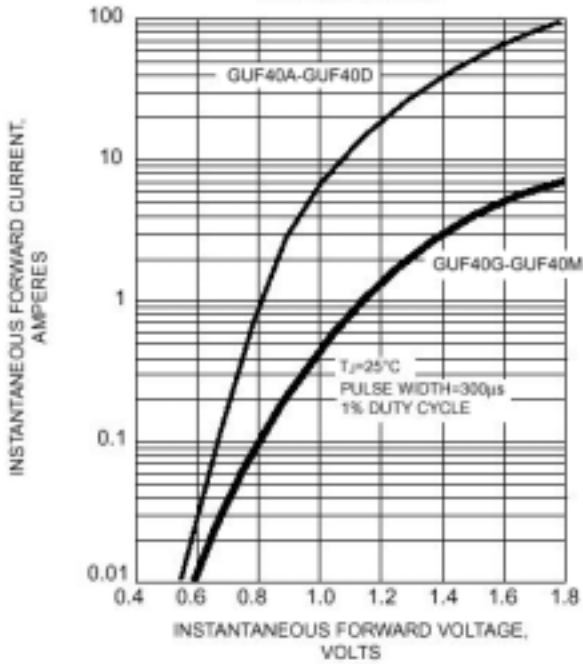


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

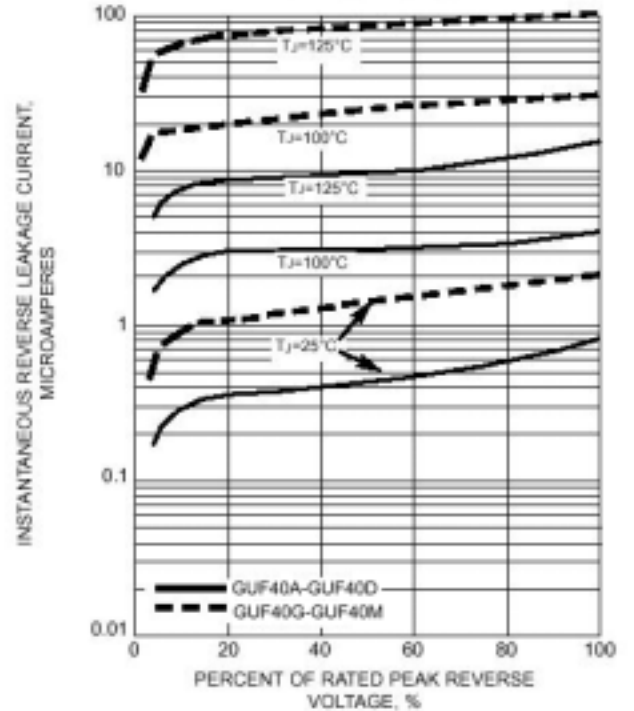


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

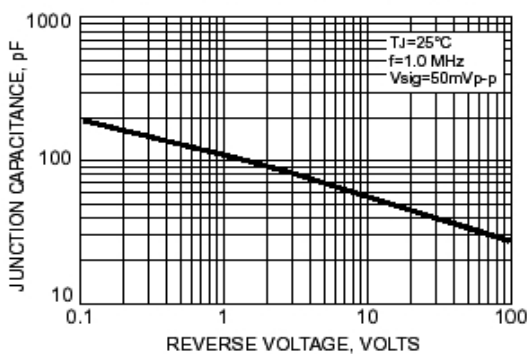


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

