GUF02-12E THRU GUF02-20E

SINTERED GLASS JUNCTION
FAST SWITCHING PLASTIC RECTIFIER
VOLTAGE:1200 TO 2000V CURRENT: 0.25A

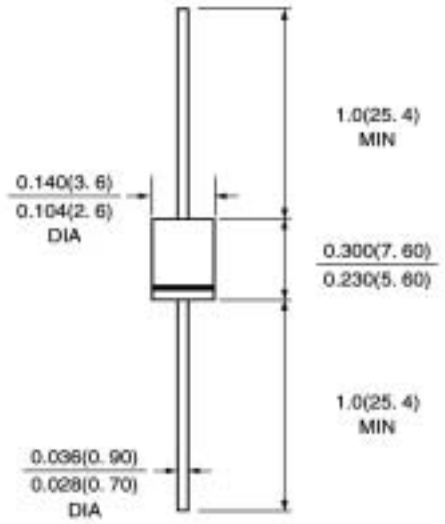
FEATURE

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<0.5μA

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-15



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	GUF02 -12E	GUF02 -14E	GUF02 -16E	GUF02 -18E	GUF02 -20E	units
Maximum Recurrent Peak Reverse Voltage	Vrrm	1200	1400	1600	1800	2000	V
Maximum RMS Voltage	Vrms	840	980	1120	1360	1400	V
Maximum DC blocking Voltage	Vdc	1200	1400	1600	1800	2000	V
Maximum Average Forward Rectified Current 3/8"lead length at Ta =55°C	If(av)	0.25					A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	Ifsm	10.0					A
Maximum Forward Voltage at 0.25A and 25°C	Vf	6.0					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	10.0 300.0					μA μA
Maximum Reverse Recovery Time (Note 1)	Trr	75					nS
Typical Junction Capacitance (Note 2)	Cj	5.0					pF
Typical Thermal Resistance (Note 3)	R(ja)	65.0					°C /W
Storage and Operating Junction Temperature	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. B
4. oard Mounted[1]

[1] Rev.A4, 1-Jul-03

[2]

Fig. 1 – Forward Current Derating Curve

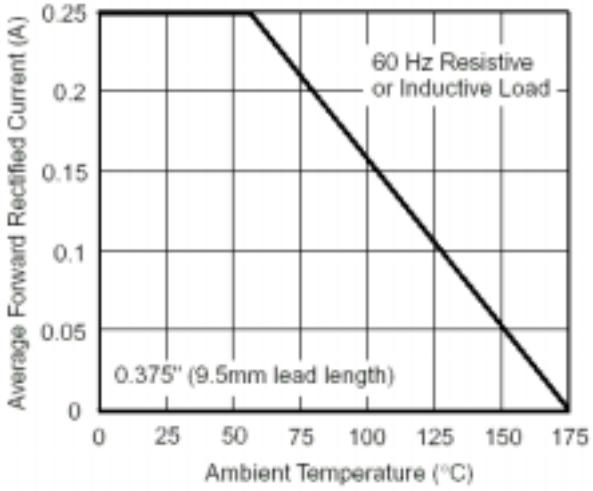


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

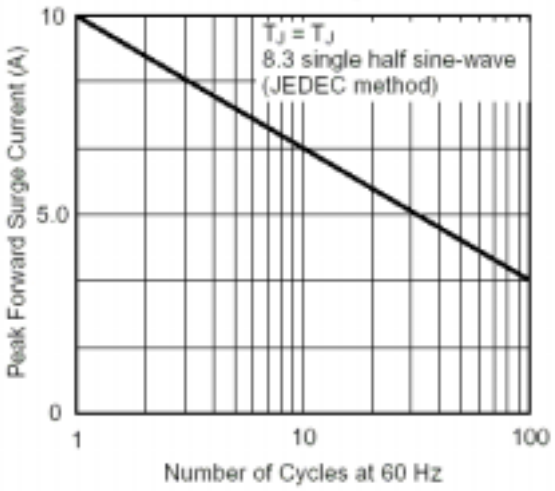


Fig. 3 – Typical Instantaneous Forward Characteristics

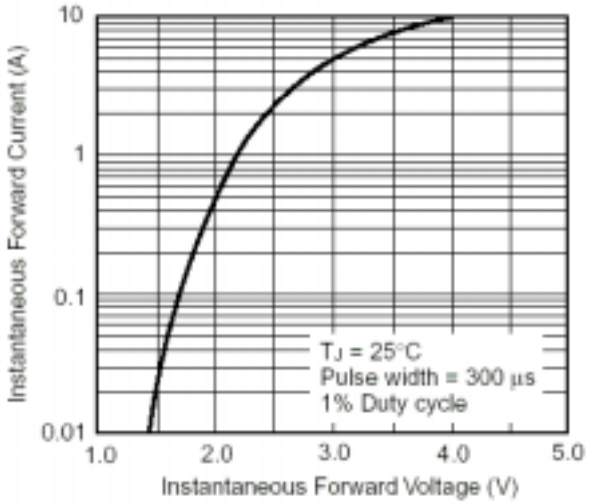


Fig. 4 – Typical Reverse Characteristics

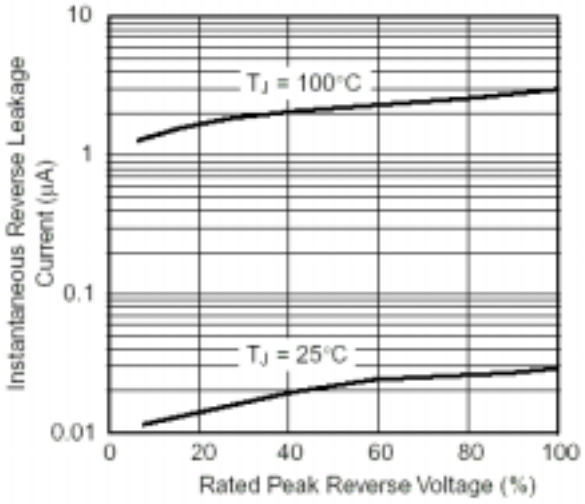
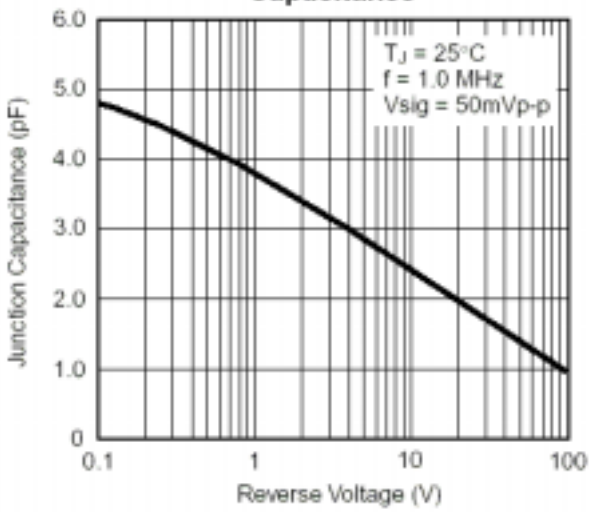


Fig. 5 – Typical Junction Capacitance



[2] Rev.A4, 1-Jul-03