GP30J-E

SINTERED GLASS JUNCTION PLASTIC RECTIFIER

VOLTAGE: 600V CURRENT: 3.0A

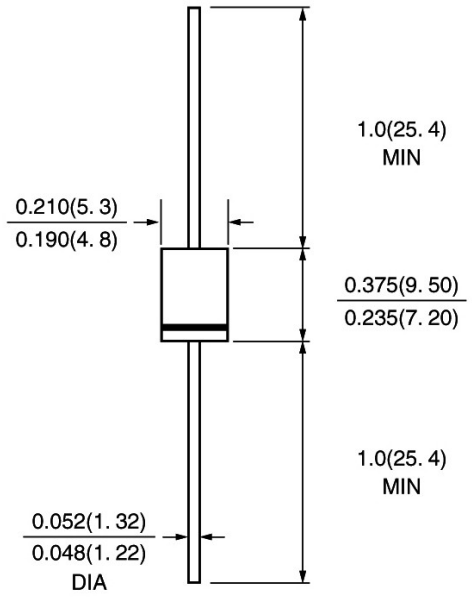
FEATURE

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<0.1μA
Halogen Free

MECHANICAL DATA

Terminal: Plated axial leads solderable per J-STD-002
Case: Molded with UL-94 Class V-0 recognized Halogen Free 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	GP30J-E	units
Maximum Recurrent Peak Reverse Voltage	Vrrm	600	V
Maximum RMS Voltage	Vrms	420	V
Maximum DC blocking Voltage	Vdc	600	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	125	A
Peak forward surge current (t ≤1.0ms)	Ifsm	250	A
Rating for fusing (t < 8.3ms)	I^2t	64	A^2Sec
Maximum Instantaneous Forward Voltage at 3.0A	Vf	1.1	V
Maximum full load reverse current full cycle Average at 55°C	Ir(av)	100	μA
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =150°C	Ir	5.0 100	μA
Typical Reverse Recovery Time (Note 1)	Trr	3.0	μS
Typical Junction Capacitance (Note 2)	Cj	40	pF
Typical Thermal Resistance (Note 3)	Rth(ja) Rth(jc)	20 15	°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 and from Junction to case at 3/8"lead length, P.C. Board Mounted

RATINGS AND CHARACTERISTIC CURVES GP30J-E

FIG. 1 - FORWARD CURRENT DERATING CURVE

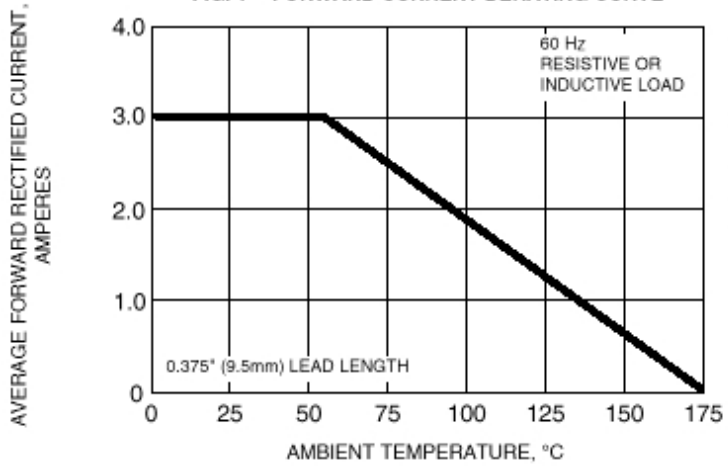


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

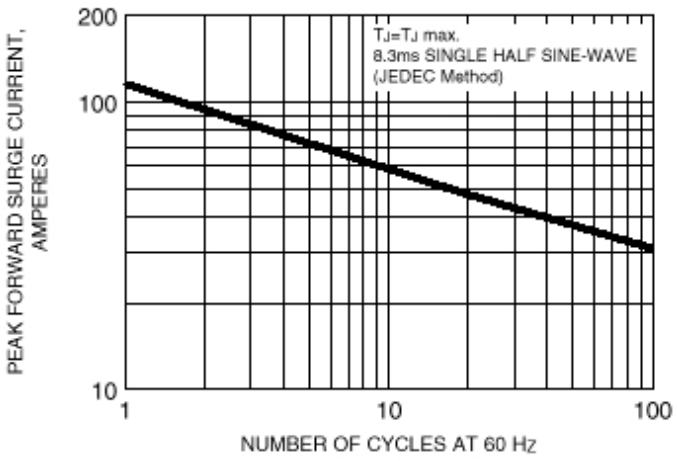


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

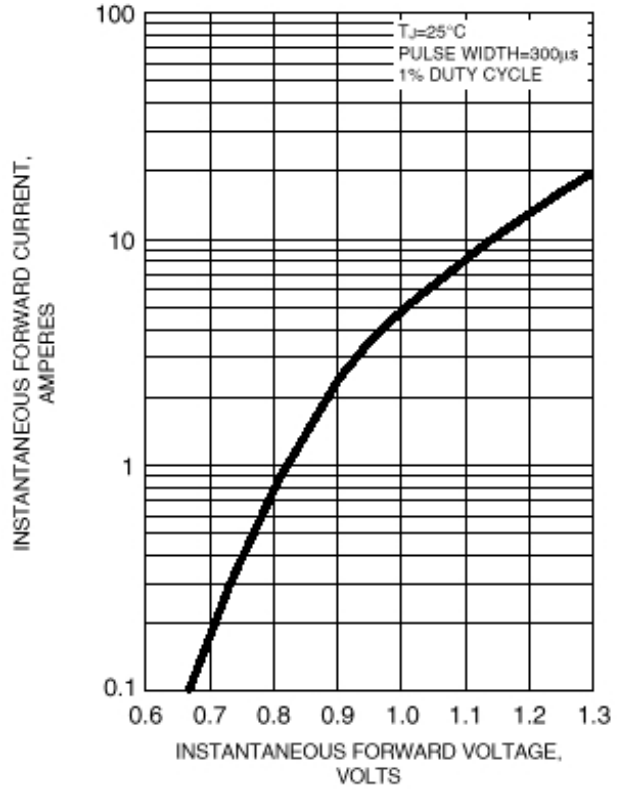


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

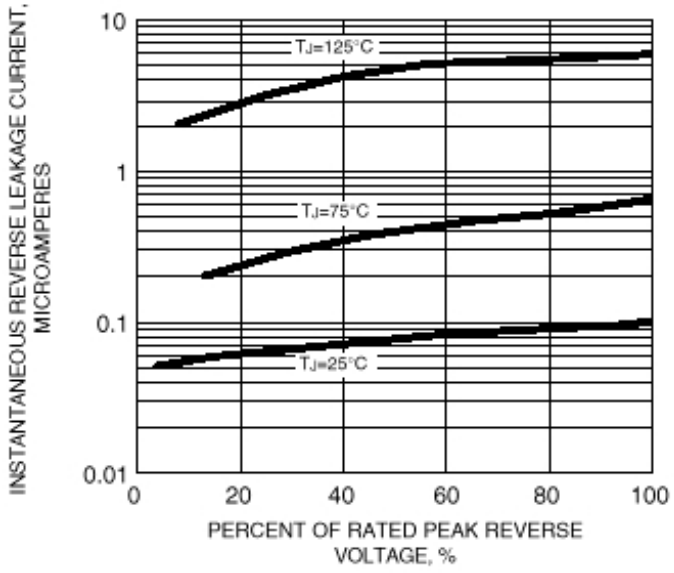


FIG. 5 - TYPICAL JUNCTION CAPACITANCE