GP10A THRU GP10M

SINTERED GLASS JUNCTION PLASTIC RECTIFIER

VOLTAGE:50 TO 1000V **CURRENT: 1.0A**

GULF SBMI

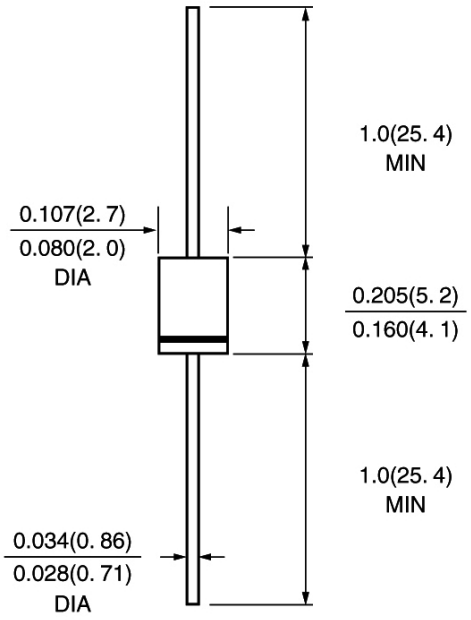
FEATURE

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

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-41\DO-204AL



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, for capacitive load, derate current by 20%)

	SYMBOL	GP 10A	GP 10B	GP 10D	GP 10G	GP 10J	GP 10K	GP 10M	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 3/8"lead length at Ta =75°C	If(av)	1.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	Ifsm	30.0							A
Maximum Instantaneous Forward Voltage at 1.0A	Vf	1.1					1.2		V
Maximum full load reverse current full cycle Average at 75°C	Ir(av)	30.0							μA
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =125°C	Ir	5.0 50.0							μA μA
Typical Reverse Recovery Time (Note 1)	Trr	2.0							μS
Typical Junction Capacitance (Note 2)	Cj	8.0					7.0		PF
Typical Thermal Resistance (Note 3)	R(ja)	55.0							°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. Board Mounted

RATINGS AND CHARACTERISTIC CURVES GP10A THRU GP10M

FIG. 1 - FORWARD CURRENT DERATING CURVE

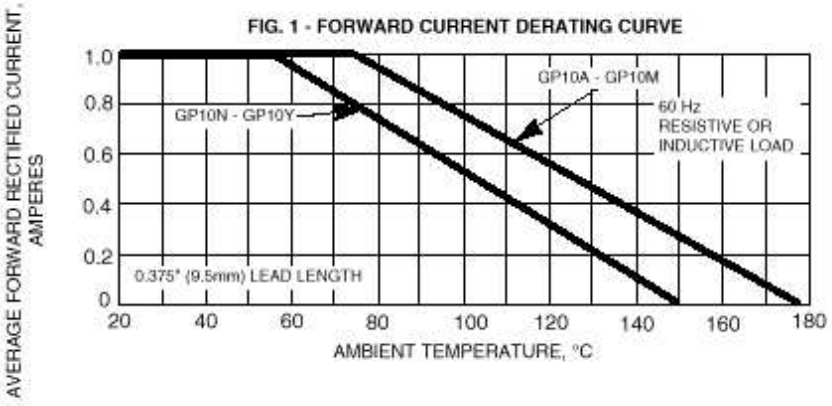


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

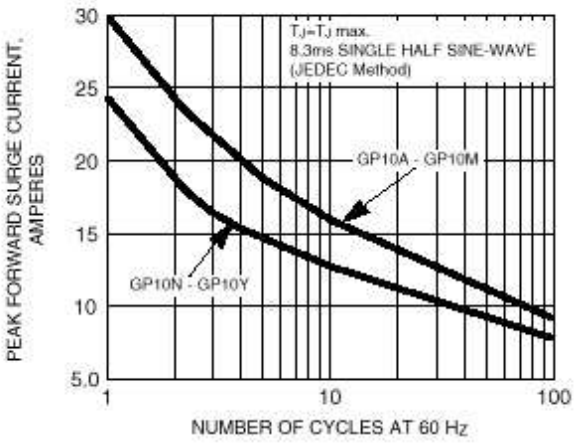


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

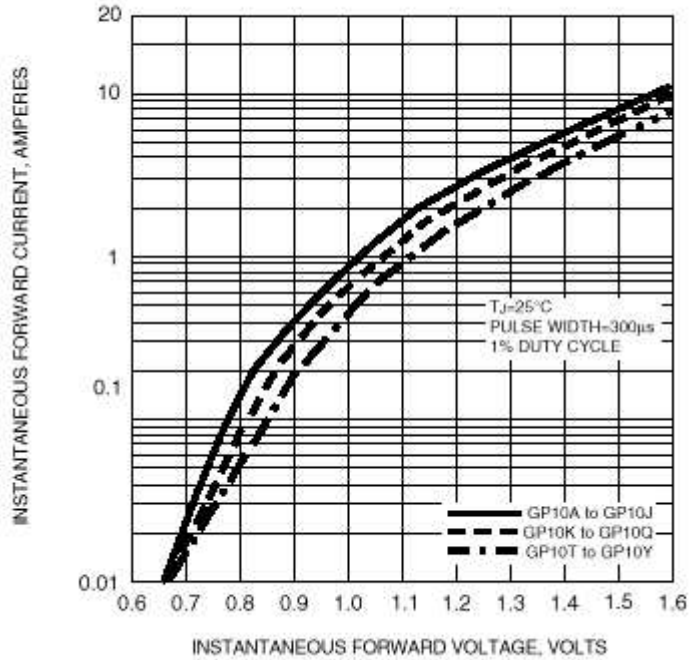


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

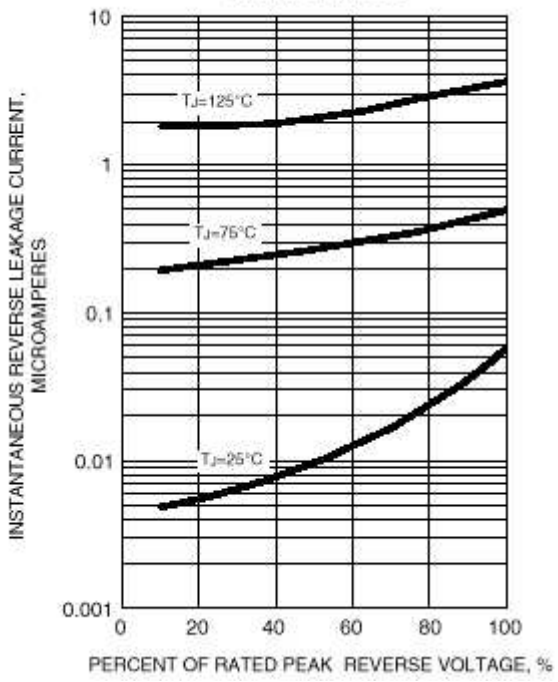
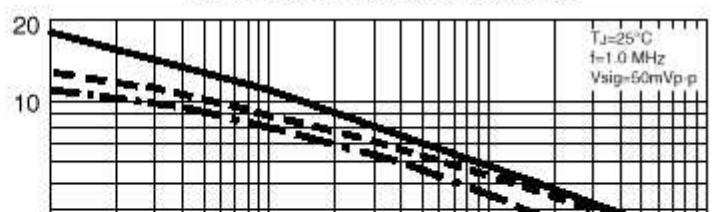


FIG. 5 - MAXIMUM REPETITIVE PEAK REVERSE VOLTAGE, V_{RRM}

GP10A	50V
GP10B	100V
GP10D	200V
GP10G	400V
GP10J	600V
GP10K	800V
GP10M	1000V

FIG. 6 - TYPICAL JUNCTION CAPACITANCE



[1] Rev.A4