GP10A THRU GP10M

SINTERED GLASS JUNCTION PLASTIC RECTIFIER

VOLTAGE:50 TO 1000V   CURRENT: 1.0A
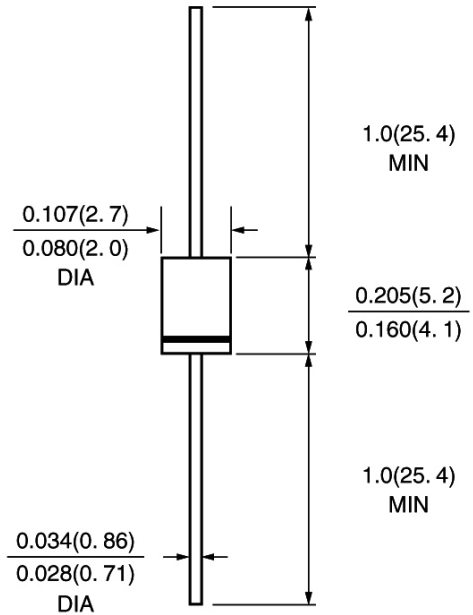
GULF SEMI

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

1.0(25. 4) MIN

0.107(2. 7)
0.080(2. 0)
DIA

0.205(5. 2)
0.160(4. 1)

1.0(25. 4) MIN

0.034(0. 86)
0.028(0. 71)
DIA

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

FIG. 1 - FORWARD CURRENT DERATING CURVE

FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT
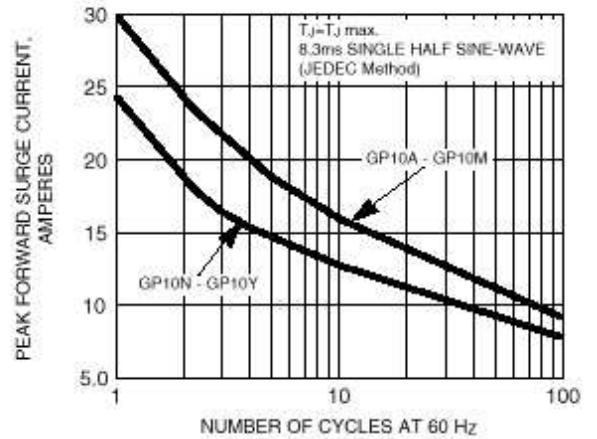
FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

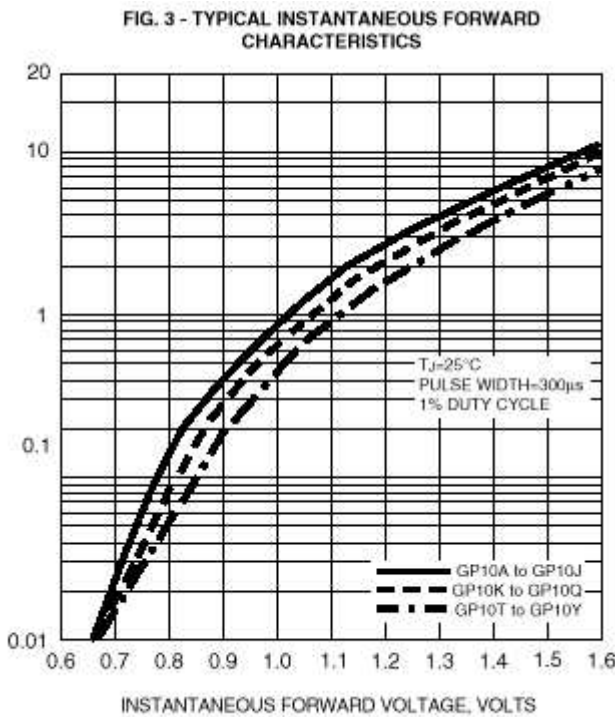FIG. 4 - TYPICAL REVERSE CHARACTERISTICS
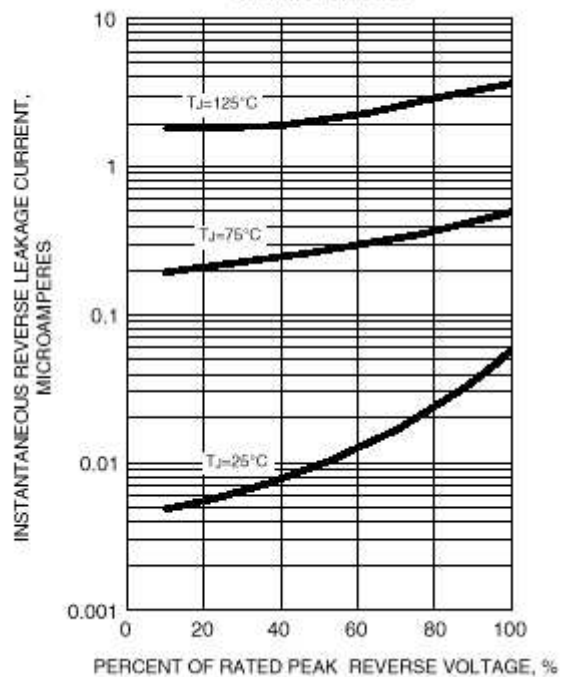
FIG. 5 - MAXIMUM REPETITIVE PEAK REVERSE VOLTAGE, V_{RRM}

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

FIG. 6 - TYPICAL JUNCTION CAPACITANCE

[1] Rev.A4