



GP10A THRU GP10M

1.0 AMP. Glass Passivated Junction Plastic Rectifiers



Voltage Range
50 to 1000 Volts
Current
1.0 Ampere

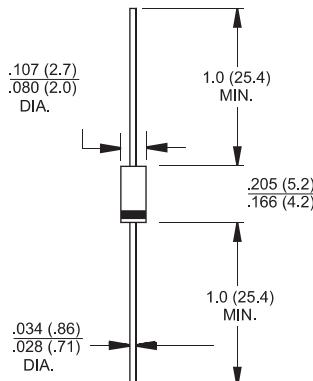
DO-41

Features

- ◊ High temperature metallurgically bonded construction
- ◊ Plastic material used carries Underwriters Laboratory Classification 94V-O
- ◊ Glass passivated cavity-free junction
- ◊ Capable of meeting environmental standards of MIL-S-19500
- ◊ 1.0 ampere operation at $T_A=75^\circ\text{C}$ and 55°C with no thermal runaway
- ◊ Typical I_R less than 0.1 μA
- ◊ High temperature soldering guaranteed: 350°C / 10 seconds, .375"(9.5mm) lead length, 5 lbs. (2.3kg) tension

Mechanical Data

- ◊ Case: JEDEC DO-41 molded plastic over glass body
- ◊ Lead: Plated axial leads, solderable per MIL-STD-750, Method 2026
- ◊ Polarity: Color band denotes cathode end
- ◊ Mounting position: Any
- ◊ Weight: 0.012 ounce, 0.3 gram



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	Symbol	GP 10A	GP 10B	GP 10D	GP 10G	GP 10J	GP 10K	GP 10M	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length (See Fig. 1)	$I_{(AV)}$	1.0						A	
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	30						A	
Maximum Instantaneous Forward Voltage @ 1.0A	V_F	1.1				1.2			V
Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=125^\circ\text{C}$	I_R	5.0				50			uA uA
Maximum Full Load Reverse Current, Full Cycle Average .375"(9.5mm) Lead Length @ $T_A=75^\circ\text{C}$	HT_{IR}	30						uA	
Typical Junction Capacitance (Note 1)	C_j	8.0				7.0			pF
Typical Thermal Resistance (Note 2)	$R \theta_{JA}$	55.0						$^\circ\text{C}/\text{W}$	
Operating and Storage Temperature Range	T_J, T_{STG}	- 65 to + 175						$^\circ\text{C}$	

Notes: 1. Measured at 1 MHz and Applied Reverse Voltage of 4.0 Volts D.C.

2. Thermal Resistance from Junction to Ambient at .375"(9.5mm) Lead Lengths, P.C. Board Mounted.

RATINGS AND CHARACTERISTIC CURVES (GP10A THRU GP10M)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

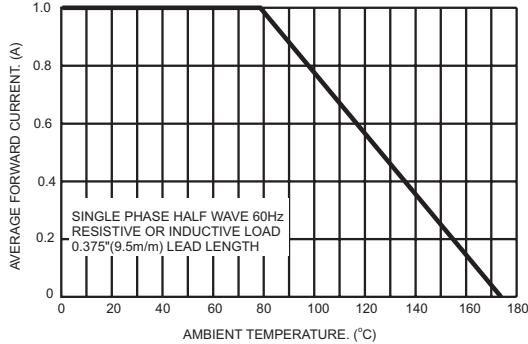


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

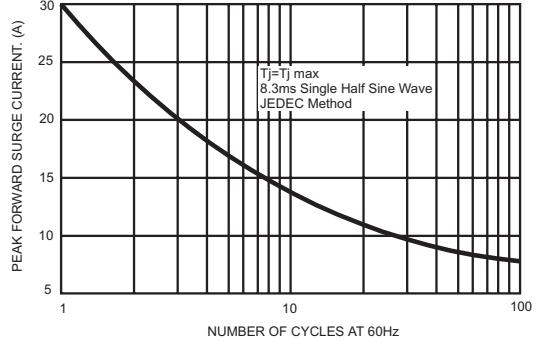


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

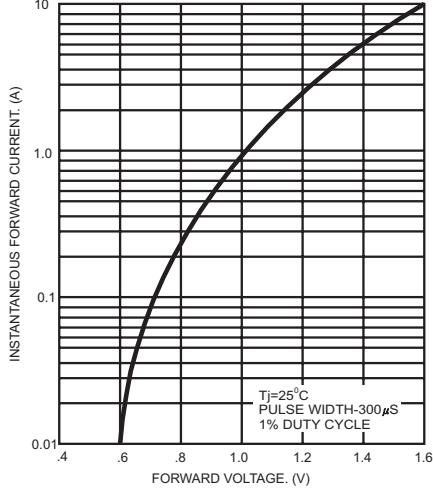


FIG.4- TYPICAL REVERSE CHARACTERISTICS

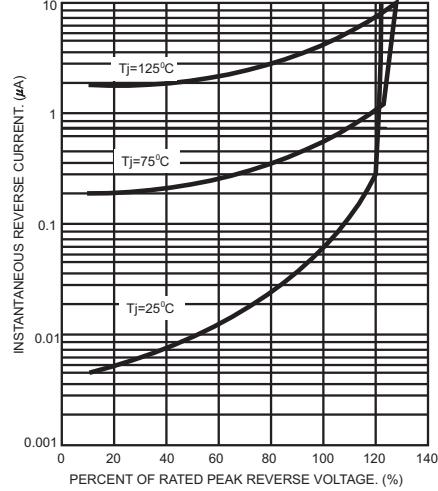


FIG.5- TYPICAL JUNCTION CAPACITANCE

