



GP30A THRU GP30M

3.0 AMPS. Glass Passivated Junction Plastic Rectifiers



Voltage Range
50 to 1000 Volts
Current
3.0 Amperes

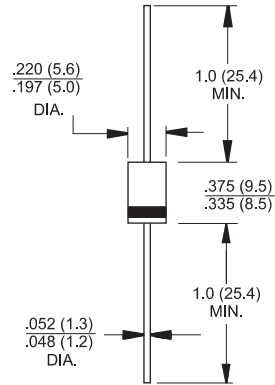
Features

- ✦ High temperature metallurgically bonded construction
- ✦ Plastic material used carries Underwriters Laboratory Classification 94V-0
- ✦ Glass passivated cavity-free junction
- ✦ Capable of meeting environmental standards of MIL-S-19500
- ✦ 3.0 amperes operation at $T_A=55^\circ\text{C}$ and with no thermal runaway
- ✦ Typical I_R less than 0.1 uA
- ✦ High temperature soldering guaranteed: $350^\circ\text{C} / 10$ seconds, 0.375"(9.5mm) lead length, 5 lbs. (2.3kg) tension

Mechanical Data

- ✦ Case: JEDEC DO-201AD 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: 0.048 ounce, 1.28 grams

DO-201AD



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 30A	GP 30B	GP 30D	GP 30G	GP 30J	GP 30K	GP 30M	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 at $T_A=55^\circ\text{C}$	$I_{(AV)}$	3.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	125							A
Maximum Instantaneous Forward Voltage @3.0A	V_F	1.2	1.1						V
Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=150^\circ\text{C}$	I_R	5.0 100							uA uA
Maximum Full Load Reverse Current, Full Cycle Average .375"(9.5mm) Lead Length @ $T_A=55^\circ\text{C}$	HTI_R	100							uA
Typical Junction Capacitance (Note 1)	C_j	40.0							pF
Typical Thermal Resistance (Note 2)	$R\theta_{JA}$	35							$^\circ\text{C}/\text{W}$
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. Mount on Cu-Pad Size 16mm x 16mm on P.C.B.

RATINGS AND CHARACTERISTIC CURVES (GP30A THRU GP30M)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

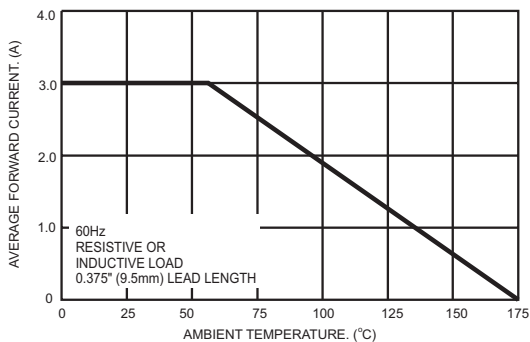


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

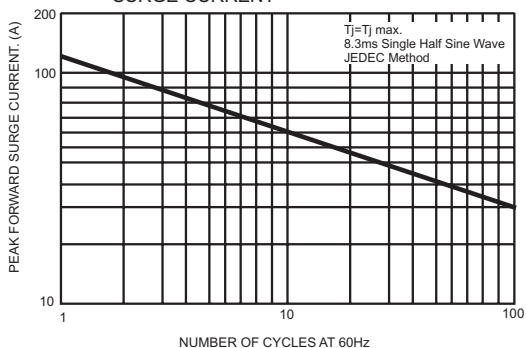


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

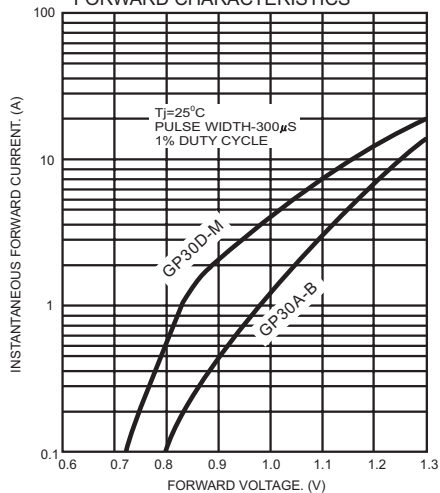


FIG.4- TYPICAL REVERSE CHARACTERISTICS

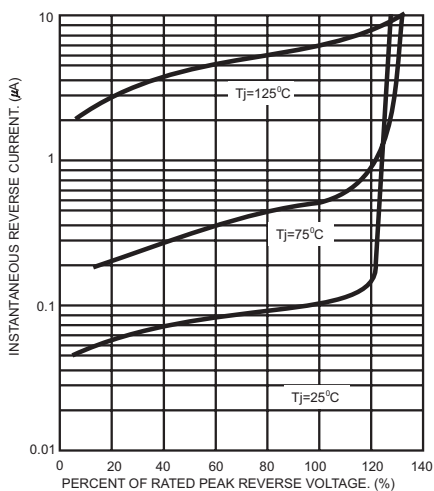


FIG.5- TYPICAL JUNCTION CAPACITANCE

