



GP30A THRU GP30M

3.0 AMPS. Glass Passivated Junction Plastic Rectifiers



Voltage Range
50 to 1000 Volts
Current
3.0 Amperes

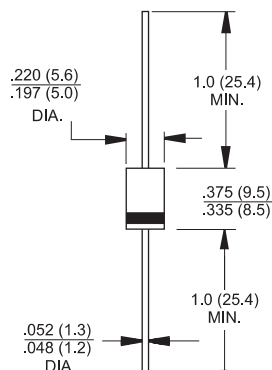
Features

- ✧ High temperature metallurgically bonded construction
- ✧ Plastic material used carries Underwriters Laboratory Classification 94V-O
- ✧ 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°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°C at Rated DC Blocking Voltage @ T _A =150°C	I _R	5.0 100							uA uA
Maximum Full Load Reverse Current, Full Cycle Average .375"(9.5mm) Lead Length @T _A =55°C	HT _{IR}	100							uA
Typical Junction Capacitance (Note 1)	C _j	40.0							pF
Typical Thermal Resistance (Note 2)	R θ JA	20							°C/W
Operating and Storage Temperature Range	T _J ,T _{STG}	- 65 to + 175							°C

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

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

RATINGS AND CHARACTERISTIC CURVES (GP30A THRU GP30M)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

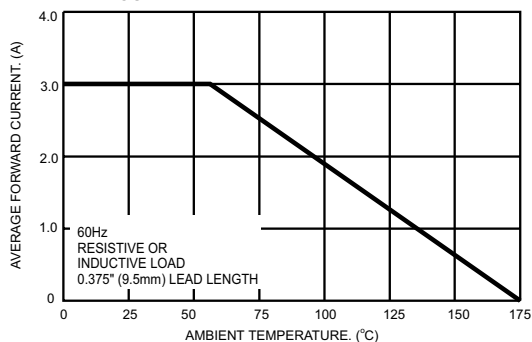


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

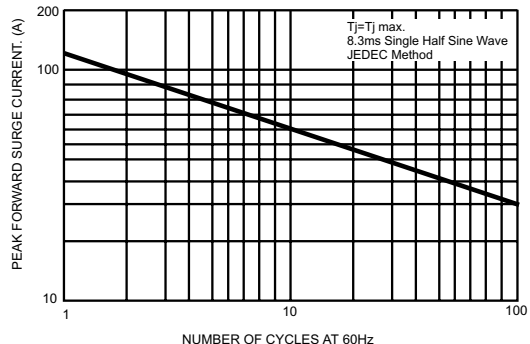


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

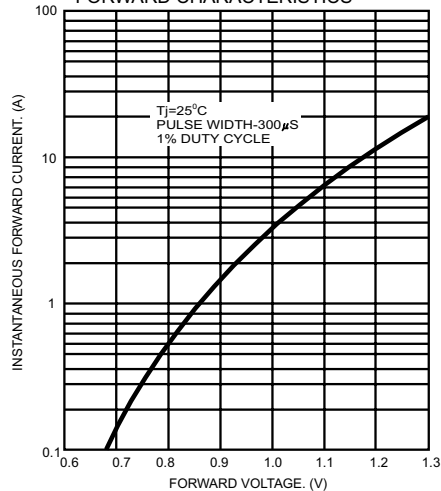


FIG.4- TYPICAL REVERSE CHARACTERISTICS

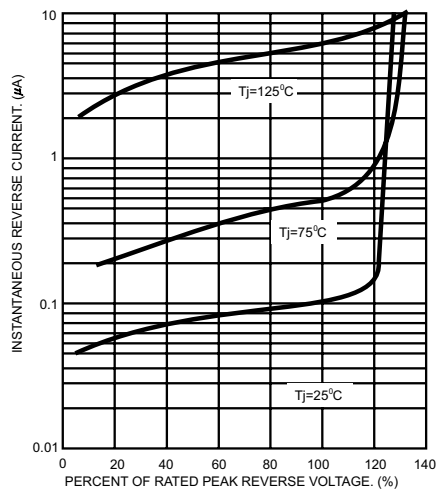


FIG.5- TYPICAL JUNCTION CAPACITANCE

