

# GP30A THRU GP30M

## SINTERED GLASS JUNCTION PLASTIC RECTIFIER

VOLTAGE:50 TO 1000V

CURRENT: 3.0A

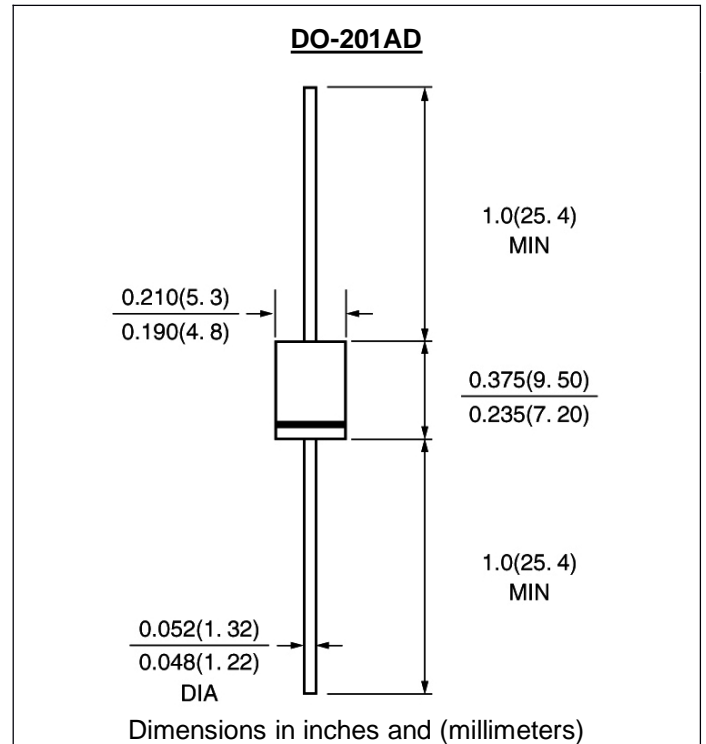


### FEATURE

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



### 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 30A	GP 30B	GP 30D	GP 30G	GP 30J	GP 30K	GP 30M	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 =55°C	If(av)	3.0							A
Peak Forward Surge Current 8.3ms single Half sine-wave superimposed on rated load	Ifsm	125.0							A
Maximum Instantaneous Forward Voltage at 3.0A	Vf	1.2		1.1				V	
Maximum full load reverse current full cycle Average at 55°C	Ir(av)	100.0							µA
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =150°C	Ir	5.0 100.0							µA µA
Typical Reverse Recovery Time (Note 1)	Trr	3.0							µS
Typical Junction Capacitance (Note 2)	Cj	40.0							pF
Typical Thermal Resistance (Note 3)	R(ja)	20.0							°C /W
Storage and Operating Junction Temperature	Tstg, Tj	-65 to +175							°C

**Note:**

- Reverse Recovery Condition If =0.5A, Ir =1.0A, Irr =0.25A
- Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
- Thermal Resistance from Junction to Ambient at 3/8"lead length, P.C. Board Mounted

RATINGS AND CHARACTERISTIC CURVES GP30A THRU GP30M

FIG. 1 - FORWARD CURRENT DERATING CURVE

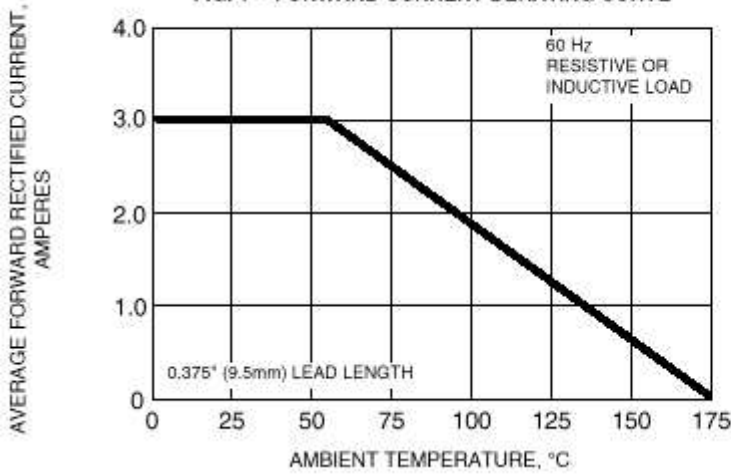


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

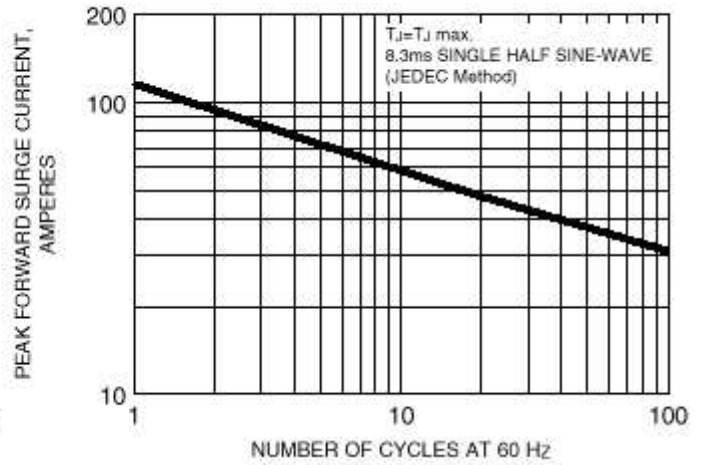


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

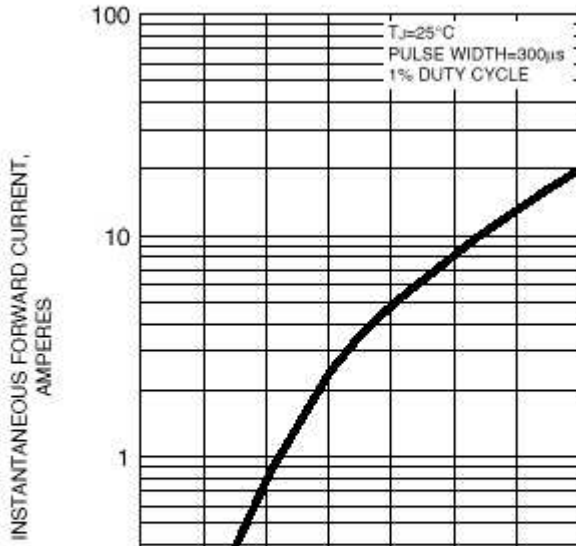


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

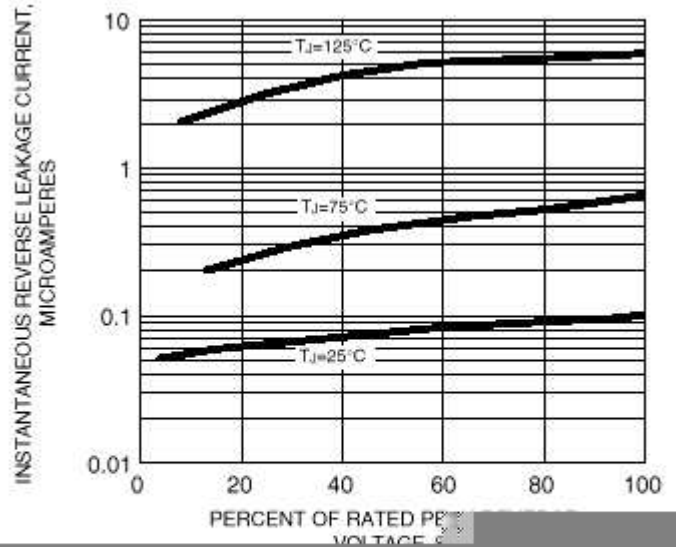


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

