



S E M I C O N D U C T O R

GPRC

# GP30A THRU GP30M

## GENERAL PURPOSE PLASTIC RECTIFIER

Reverse Voltage - 50 to 1000 Volts

Forward Current -3.0Amperes

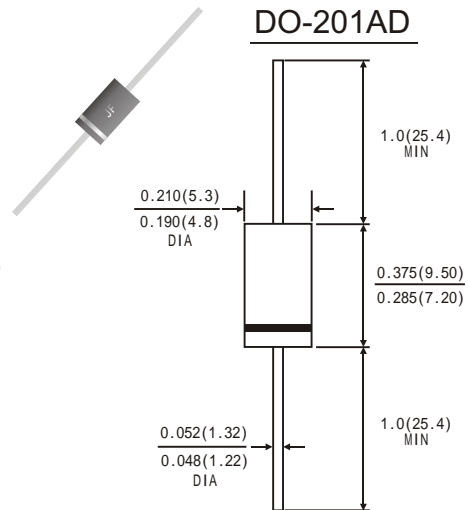
SILICON RECTIFIER

### FEATURES

- GPRC( Glass Passivated Rectifier Chip) inside
- Glass passivated cavity-free junction
- Capable of meeting environmental standards of MIL-S-19500
- 3 Ampere operation at Ta=75 and 55 with no thermal runaway  
Typical IR less than 0.1uA
- High temperature soldering guaranteed:260 /10 seconds
- Plastic Package has Under writers Laboratory Flammability Classification 94V-0

### MECHANICAL DATA

- Case: JEDEC DO-201AD molded plastic body
- Terminals: Lead solderable per MIL-STD-750,method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.042ounce, 1.19 grams



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified ,Single phase ,half wave 60Hz,,resistive or inductive load. For capacitive load, derate by 20%.)

	Symbols	GP 30A	GP 30B	GP 30D	GP 30G	GP 30J	GP 30K	GP 30M	Volts
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	300	400	600	200	1000	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	210	280	420	140	700	Volts
Maximum DC Blocking Voltage to T <sub>A</sub> =105 °C	V <sub>DC</sub>	50	100	300	400	600	200	1000	Volts
Maximum average Forward Rectified Current 0.5"(12.5mm)lead length at T <sub>L</sub> =105 °C	I(AV)	3.0							Amps
Peak Forward Surge Current (8.3ms half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	125.0							Amps
Maximum Instantaneous Forward Voltage at 3.0 A	V <sub>F</sub>	1.0							Volts
Maximum Reverse current at rated DC Blocking Voltage	I <sub>R</sub>	5.0							μA
		100.0							
Typical Thermal Resistance (Note 2)	R <sub>θJA</sub>	20.0							°C/W
Typical Junction Capacitance (Note 1)	C <sub>J</sub>	40.0							pF
Maximum DC Blocking Voltage temperature	T <sub>A</sub>	+150.0							°C
Operating and Storage temperature Range	T <sub>J</sub>	-50 to+175							°C
	T <sub>STG</sub>								

Note: 1.Measured at 1MHz and applied reverse voltage of 4.0V DC.

2.Thermal resistance from junction to ambient and from junction to lead at 0.375"(9.5mm)lead length , P.C.B. mounted

# RATINGS AND CHARACTERISTIC CURVES GP30A THROUGH P30M

FIG.1-FORWARD CURRENT DERATING CURVE

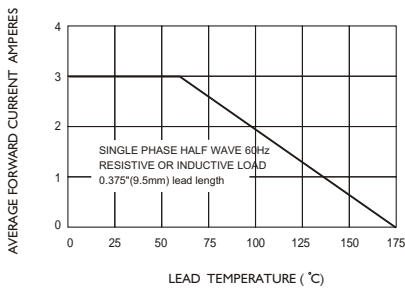


FIG.2-TYPICAL INSTANTANEOUS FORWARD VOLTAGE.(V)

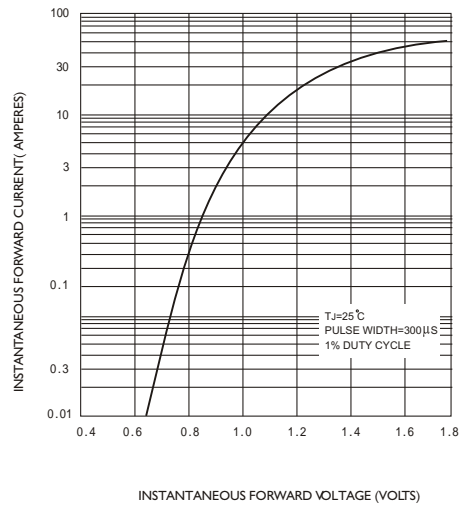


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

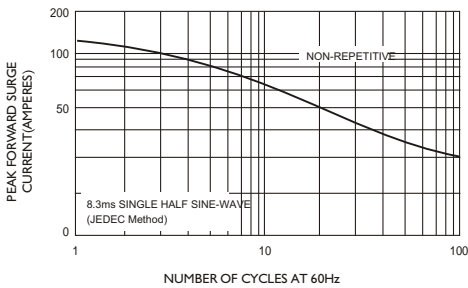


FIG.4-TYPICAL REVERSE CHARACTERISTICS

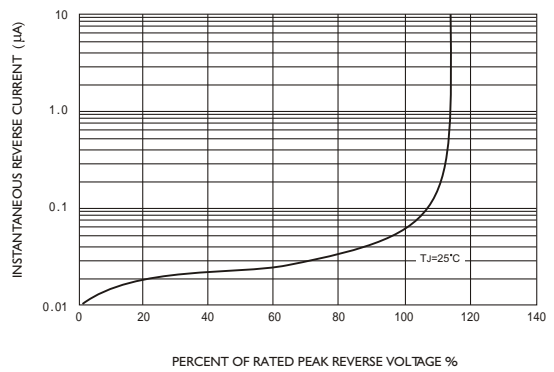


FIG.5-TYPICAL JUNCTION CAPACITANCE

