



SEMICONDUCTOR

GPRC

# GP30A THRU GP30M

## GENERAL PURPOSE PLASTIC RECTIFIER

Reverse Voltage - 50 to 1000 Volts

Forward Current -3.0Amperes

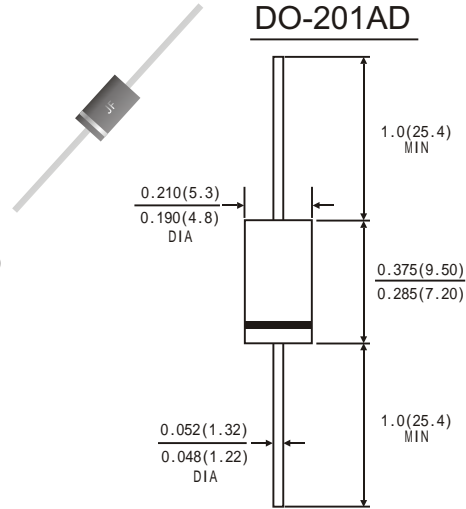
SILICON RECTIFIER

### 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  $T_a=75$  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	$V_{RRM}$	50	100	300	400	600	200	1000	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	210	280	420	140	700	Volts
Maximum DC Blocking Voltage to $T_a=105$ °C	$V_{DC}$	50	100	300	400	600	200	1000	Volts
Maximum average Forward Rectified Current 0.5"(12.5mm)lead length at $T_L=105$ °C	$I_{(AV)}$	3.0							Amps
Peak Forward Surge Current (8.3ms half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	125.0							Amps
Maximum Instantaneous Forward Voltage at 3.0 A	$V_F$	1.0							Volts
Maximum Reverse current at rated DC Blocking Voltage	$I_R$	$T_a = 25$ °C							$\mu A$
		$T_a = 150$ °C							
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	20.0							°C/W
Typical Junction Capacitance (Note 1)	$C_J$	40.0							Pf
Maximum DC Blocking Voltage temperature	$T_A$	+150.0							°C
Operating and Storage temperature Range	$T_J$	-50 to+175							°C
	$T_{STG}$								

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

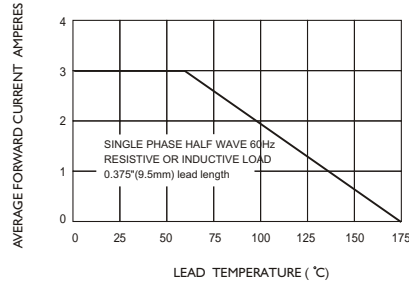


FIG.2-TYPICAL INSTANTANEOUS FORWARD VOLTAGE.(V)

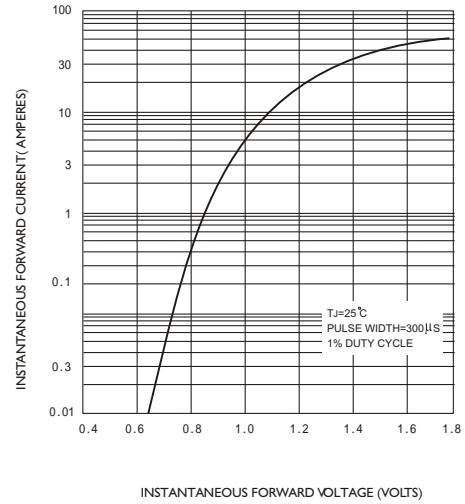


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

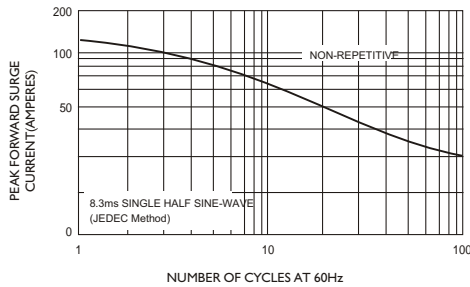


FIG.4-TYPICAL REVERSE CHARACTERISTICS

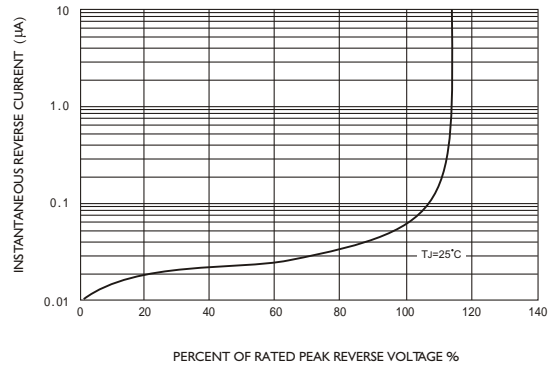


FIG.5-TYPICAL JUNCTION CAPACITANCE

