



SEMICONDUCTOR

GPRC

GP30A THRU GP30M

GENERAL PURPOSE PLASTIC RECTIFIER

Reverse Voltage - 50 to 1000 Volts

Forward Current -3.0Amperes

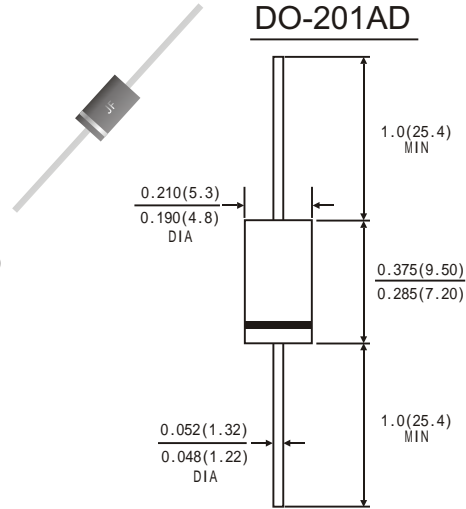
SILICON RECTIFIER

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 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_{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 Ta=105 C	V_{DC}	50	100	300	400	600	200	1000	Volts
Maximum average Forward Rectified Current 0.5"(12.5mm)lead length at Tl=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	$T_a = 25^\circ C$							μA
		$T_a = 150^\circ C$							
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

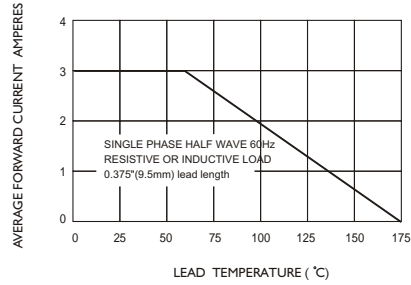


FIG.2-TYPICAL INSTANTANEOUS FORWARD VOLTAGE.(V)

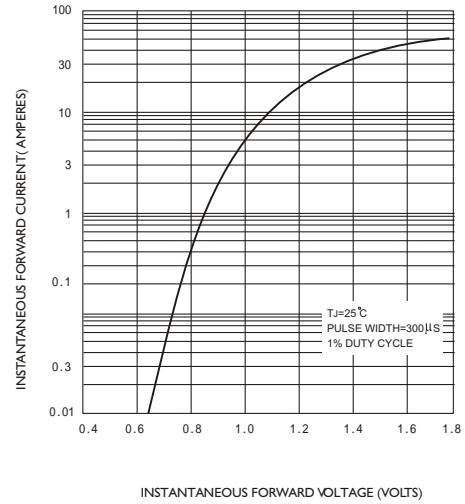


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

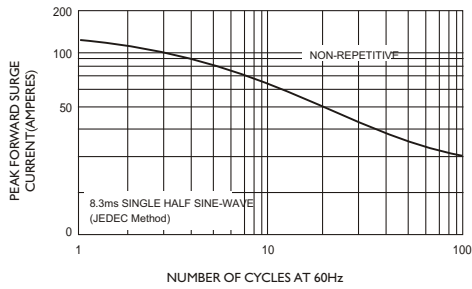


FIG.4-TYPICAL REVERSE CHARACTERISTICS

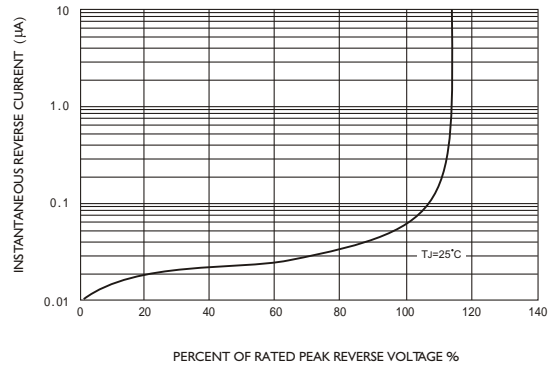


FIG.5-TYPICAL JUNCTION CAPACITANCE

