

# RGPB30J

**SINTERED GLASS JUNCTION  
FAST SWITCHING PLASTIC RECTIFIER**  
VOLTAGE:600V                      CURRENT: 3.0A



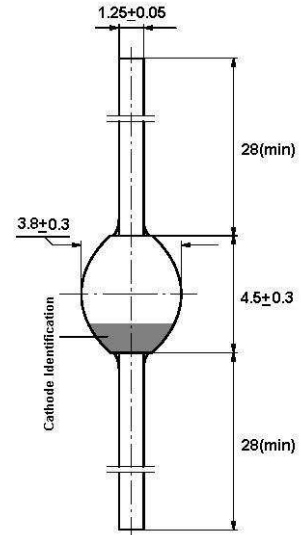
## FEATURE

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

## PACKAGE



Dimensions in millimeters

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

	SYMBOL	RGPB30J	units
Maximum Recurrent Peak Reverse Voltage	Vrrm	600	V
Maximum RMS Voltage	Vrms	420	V
Maximum DC blocking Voltage	Vdc	600	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	A
Maximum Forward Voltage at rated Forward Current and 25°C IF=3A	Vf	1.1	V
Maximum full load reverse current full cycle average at 55°C Ambient	Ir(av)	100	µA
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =150°C	Ir	5.0 100	µA µA
Maximum Reverse Recovery Time (Note 1)	Trr	150	nS
Typical Junction Capacitance (Note 2)	Cj	60	pF
Typical Thermal Resistance (Note 3)	R(ja)	20	°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

Rev.A1

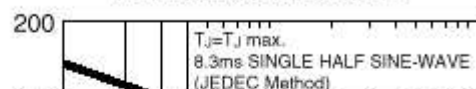
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## RATINGS AND CHARACTERISTIC CURVES RGPB30J

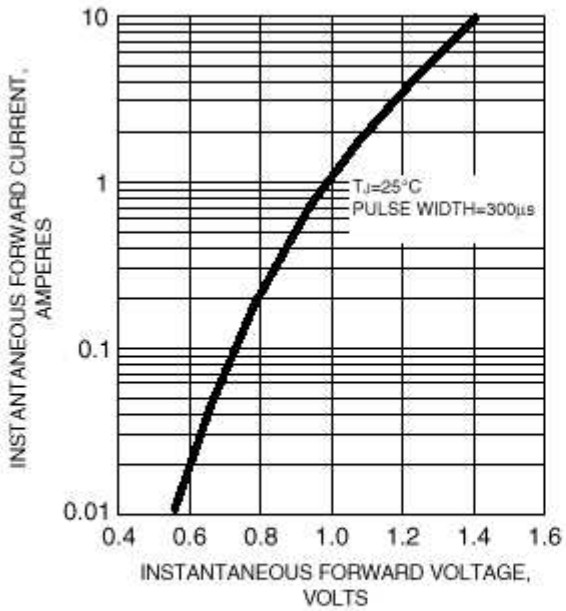
FIG. 1 - FORWARD CURRENT DERATING CURVE



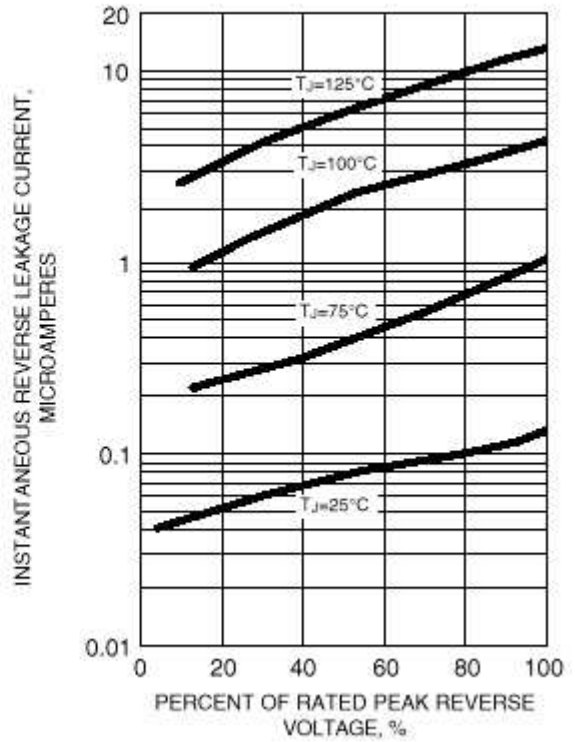
FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



**FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG. 4 - TYPICAL REVERSE CHARACTERISTIC**



**FIG. 5 - TYPICAL JUNCTION CAPACITANCE**

