

# RGP10B-E

**SINTERED GLASS JUNCTION  
FAST SWITCHING PLASTIC RECTIFIER**  
VOLTAGE: 100V                      CURRENT: 1.0A



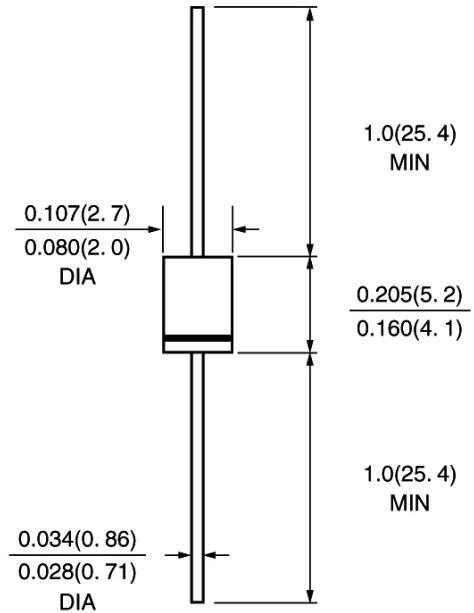
## FEATURE

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  
Halogen Free

## MECHANICAL DATA

Terminal: Plated axial leads solderable per MIL-STD 202E, method 208C  
Case: Molded with UL-94 Class V-0 recognized Halogen Free ant Epoxy  
Polarity: color band denotes cathode  
Mounting position: any

## DO-41\DO-204AL



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOL	RGP10B-E	units
Maximum Recurrent Peak Reverse Voltage	V <sub>rrm</sub>	100	V
Maximum RMS Voltage	V <sub>rms</sub>	70	V
Maximum DC blocking Voltage	V <sub>dc</sub>	100	V
Maximum Average Forward Rectified Current 3/8"lead length at Ta =55°C	I <sub>f(av)</sub>	1.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I <sub>fsm</sub>	30.0	A
Maximum Forward Voltage at rated Forward Current and 25°C	V <sub>f</sub>	1.3	V
Maximum full load reverse current full cycle average at 55°C Ambient	I <sub>r(av)</sub>	100.0	µA
Maximum DC Reverse Current                      Ta =25°C at rated DC blocking voltage                      Ta =150°C	I <sub>r</sub>	5.0 200.0	µA
Maximum Reverse Recovery Time                      (Note 1)	T <sub>rr</sub>	150	nS
Typical Junction Capacitance                      (Note 2)	C <sub>j</sub>	15.0	pF
Typical Thermal Resistance                      (Note 3)	R <sub>th(ja)</sub>	55.0	°C /W
Storage and Operating Junction Temperature	T <sub>stg, Tj</sub>	-65 to +175	°C

Note:

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

# RATINGS AND CHARACTERISTIC CURVES RGP10B-E

FIG. 1 - FORWARD CURRENT DERATING CURVE

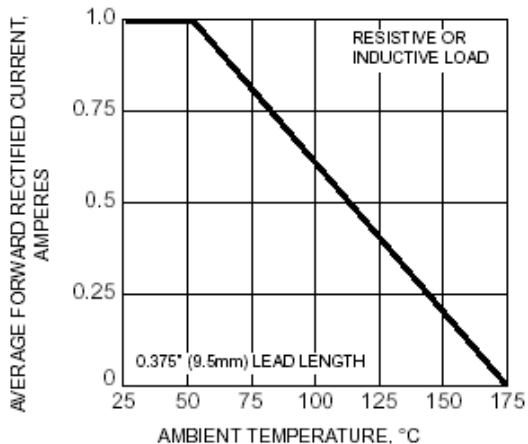


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

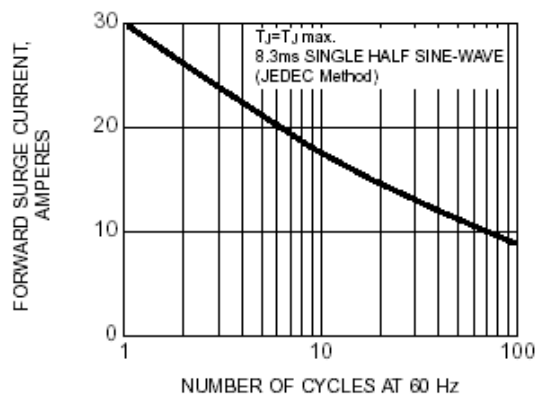


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

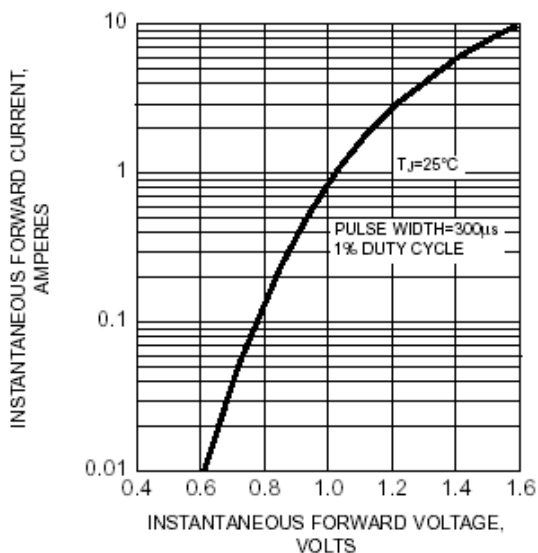


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

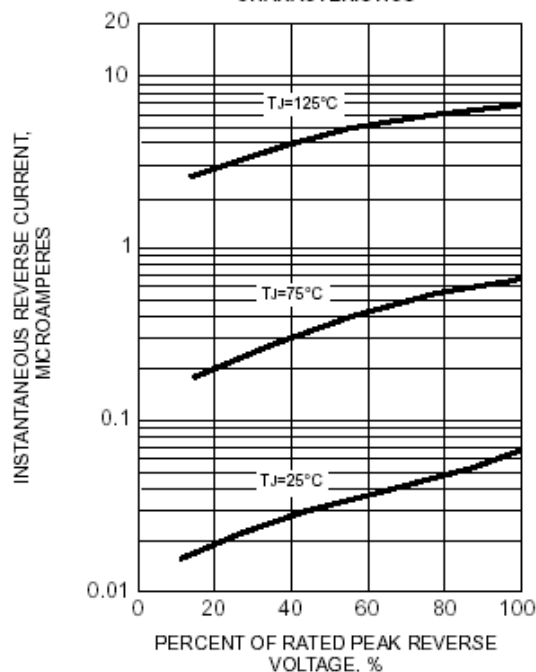


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

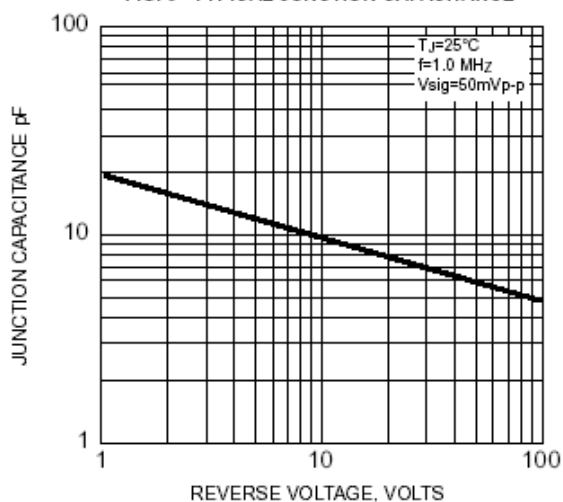


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

