



# RGP02-12 THRU RGP02-20

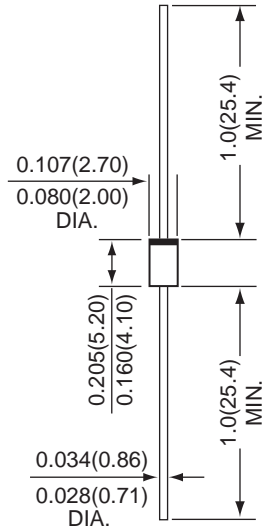
## SINTERED GLASS PASSIVATED JUNCTION FAST RECOVERY RECTIFIER

*Reverse Voltage - 1200 to 2000 Volts*

*Forward Current 1.0 Ampere*

**PATENTED**

DO-204AL



\*Dimensions in inches and (millimeters)

**SUPEREX II**™



### FEATURES

- \* GPRC (Glass Passivated Rectifier Chip) inside
- \* Glass passivated cavity-free junction
- \* Capable of meeting environmental standards of MIL-S-19500
- \* 1.0 Ampere operation at  $T_A = 55^\circ\text{C}$  with no thermal runaway
- \* High temperature soldering guaranteed:  $260^\circ\text{C}/10$  seconds, 0.375" (9.5mm) lead length, 5lbs. (2.3 kg) tension
- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0

### MECHANICAL DATA

**Case :** JEDEC DO-204AL molded plastic over glass body

**Terminals :** Tin Plated, solderable per MIL-STD-750, Method 2026

**Polarity :** Color band denotes cathode end

**Weight :** 0.012 ounces , 0.3 gram

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.	SYMBOLS	RGP02				UNITS
		12	15	18	20	
Maximum repetitive peak reverse voltage	VRRM	1200	1500	1800	2000	Volts
Maximum RMS voltage	VRMS	840	1050	1260	1400	Volts
Maximum DC blocking voltage	VDC	1200	1500	1800	2000	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length (SEE FIG.1)	I (AV)	1.0				Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	20				Amps
Maximum instantaneous forward voltage at 1.0 A	VF	1.8				Volts
Maximum DC reverse current at rated DC blocking voltage	IR	5 50				uA
Typical reverse recovery time (NOTE 1)	Trr	300				ns
Typical junction capacitance (NOTE 2)	CJ	5.0				pF
Typical thermal resistance (NOTE 3)	R θJA R θJL	65 30				°C / W
Operating junction and storage temperature range	TJ,TSTG	-65 to +175				°C

NOTES : (1) Revers recovery test conditions :  $I_F = 0.5\text{A}$ ,  $I_R = 1.0\text{A}$ ,  $I_{rr} = 0.25\text{A}$

(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

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

# RATINGS AND CHARACTERISTIC CURVES RGP02-12 THRU RGP02-20

FIG. 1 - FORWARD CURRENT DERATING CURVE

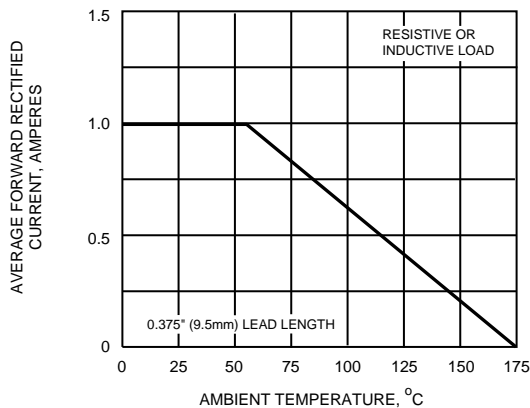


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

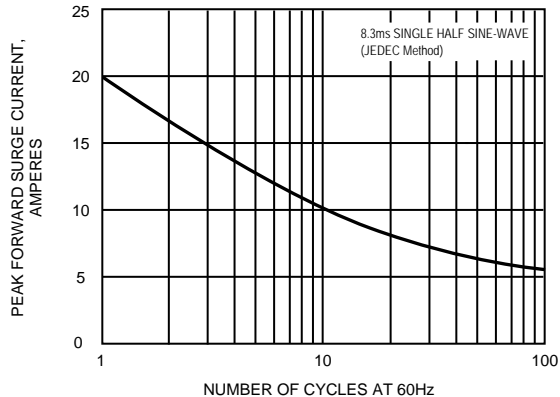


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

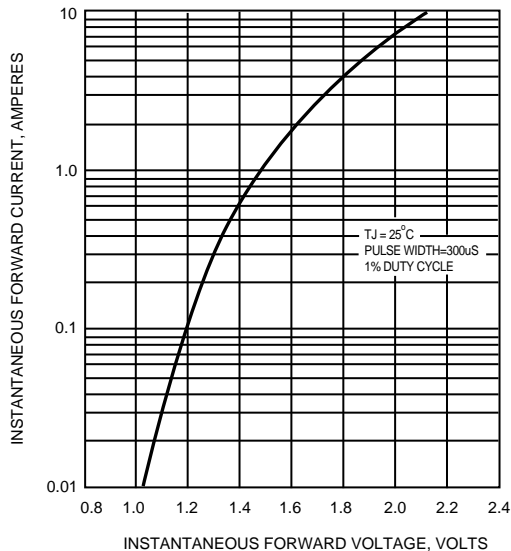


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

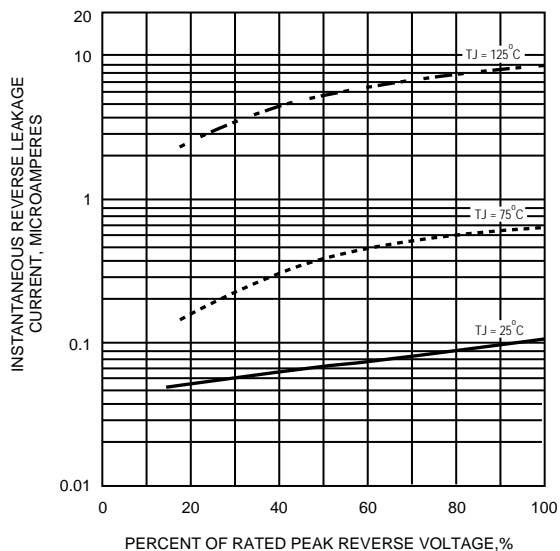


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

