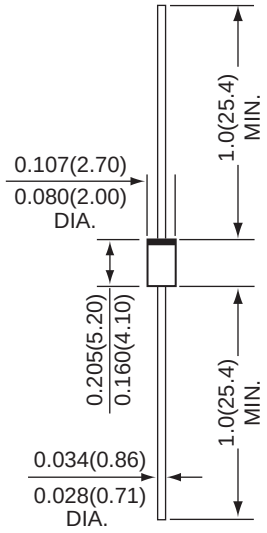
RGP02-12 THRU RGP02-20

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°C with no thermal runaway
* High temperature soldering guaranteed: 260°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 ounes , 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	V_{RRM}	***1200***	***1500***	***1800***	***2000***	Volts
Maximum RMS voltage	V_{RMS}	***840***	***1050***	***1260***	***1400***	Volts
Maximum DC blocking voltage	V_{DC}	***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)	I_{FSM}	20				Amps
Maximum instantaneous forward voltage at 1.0 A	V_F	1.8				Volts
Maximum DC reverse current at rated DC blocking voltage T_A=25°C T_A=100°C	I_R	5 50				uA
Typical reverse recovery time (NOTE 1)	Trr	300				ns
Typical junction capacitance (NOTE 2)	C_J	5.0				pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$ $R_{\theta JL}$	65 30				°C / W
Operating junction and storage temperature range	T_J,T_{STG}	-65 to +175				°C

NOTES : (1) Revers recovery test conditions : I_F=0.5A, I_R=1.0A, Irr=0.25A
(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

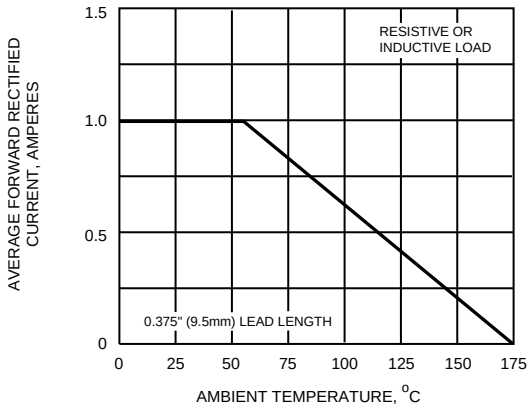


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

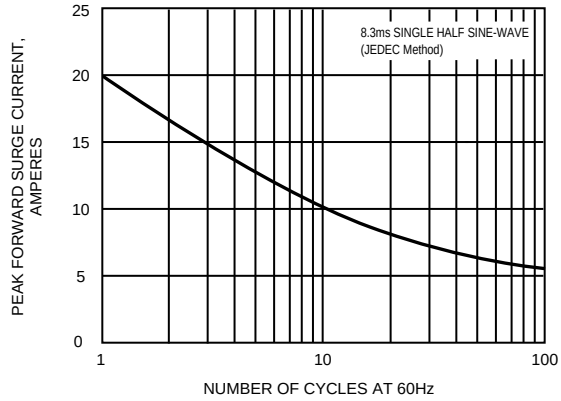


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

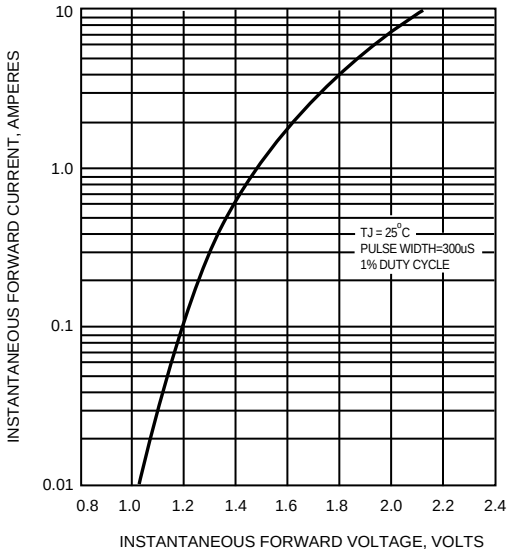


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

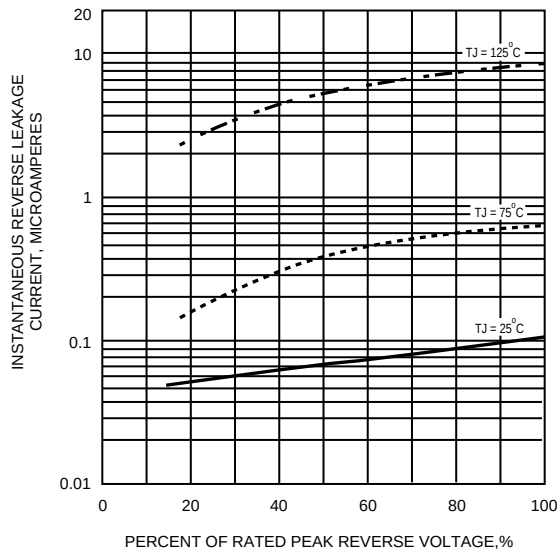


FIG.5 - TYPICAL JUNCTION CAPACITANCE