



RGP20A THRU RGP20M

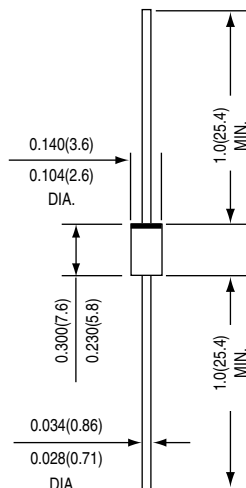
SINTERED GLASS PASSIVATED JUNCTION FAST RECOVERY RECTIFIER

Reverse Voltage - 50 to 1000 Volts

Forward Current - 2.0 Amperes

PATENTED

DO-204AC



*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
- * For use in high frequency rectifier circuits
- * Fast switching for high efficiency
- * 2.0 Amperes operation at $T_A=55^{\circ}\text{C}$ with no thermal runaway
- * Typical IR less than 0.1uA
- * 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-204AC molded plastic over glass body

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

Polarity : Color band denotes cathode end

Weight : 0.015 ounces , 0.4 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.	SYMBOLS	RGP20										UNITS
		A	B	D	G	J	JA	K	KA	M	MA	
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	600	800	800	1000	1000	Volts
Maximum RMS voltage	VRMS	35	70	140	280	420	420	560	560	700	700	Volts
Maximum DC blocking voltage	VDC	50	100	200	400	600	600	800	800	1000	1000	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length (SEE FIG.1)	I (AV)	2.0										Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	65										Amps
Maximum instantaneous forward voltage at 2.0 A	VF	1.3										Volts
Maximum DC reverse current $T_A=25^{\circ}\text{C}$ $T_A=125^{\circ}\text{C}$ at rated DC blocking voltage $T_A=150^{\circ}\text{C}$	IR	5 30 80										uA
Maximum reverse recovery time (NOTE 1)	trr	150				250	150	500	300	500	300	nS
Typical junction capacitance (NOTE 2)	CJ	35										pF
Typical thermal resistance (NOTE 3)	R θ JA	22										$^{\circ}\text{C} / \text{W}$
Operating junction and storage temperature range	TJ,TSTG	-65 to +175										$^{\circ}\text{C}$

NOTES : (1) Reverse recovery test condition : IF 0.5A, IR=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 RGP20A THRU RGP20M

FIG.1 - FORWARD CURRENT DERATING CURVE

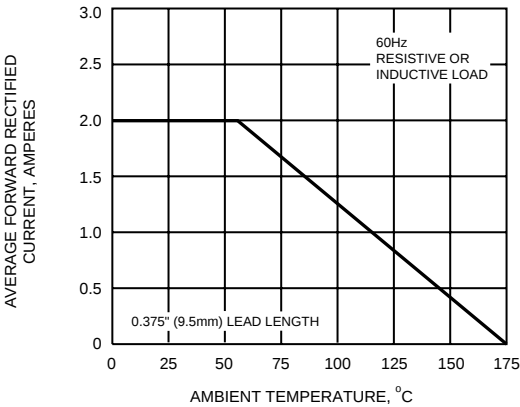


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

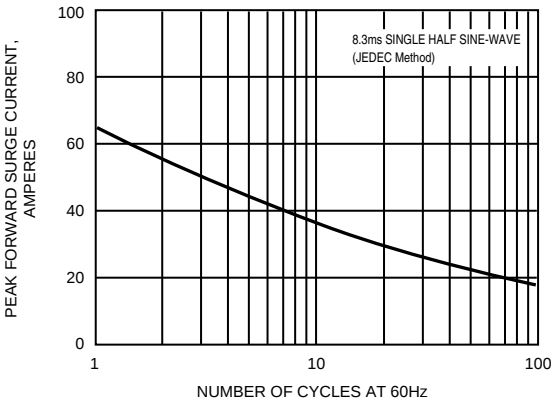


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

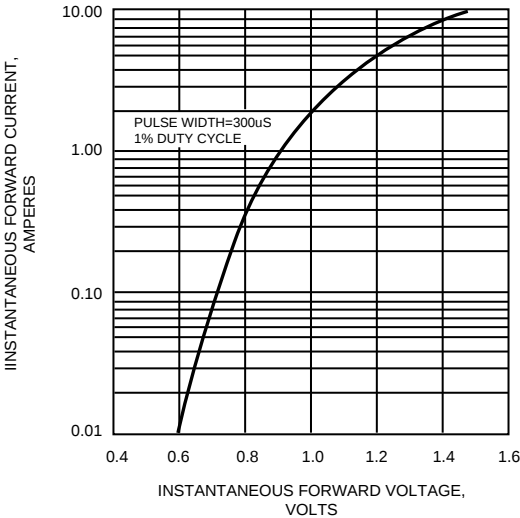


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

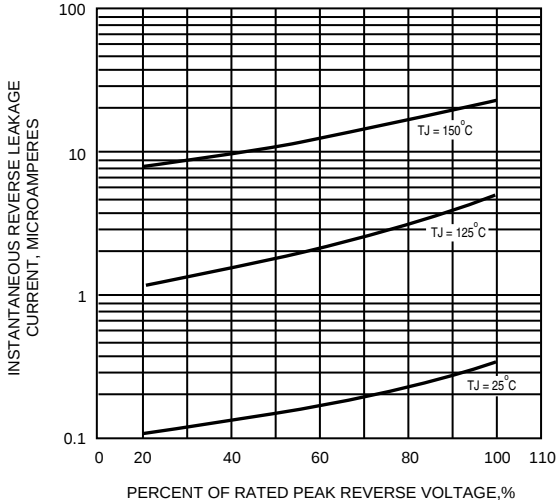


FIG.5 - TYPICAL JUNCTION CAPACITANCE

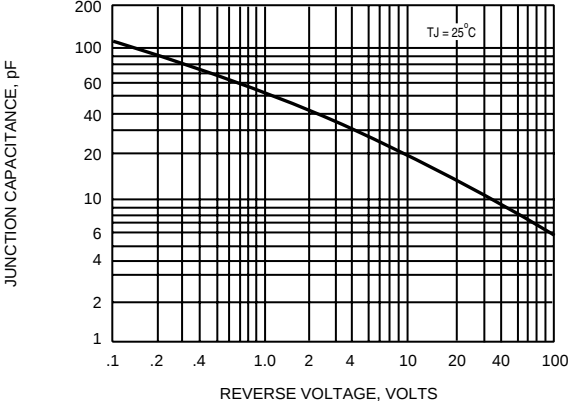


FIG.6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

