

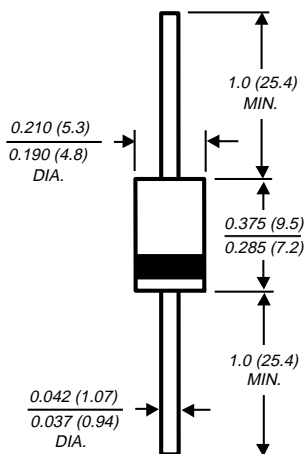
RGP20A THRU RGP20J

GLASS PASSIVATED JUNCTION FAST SWITCHING PLASTIC RECTIFIER

Reverse Voltage - 50 to 600 Volts Forward Current - 2.0 Amperes

PATENTED*

Case Style GP20



Dimensions in inches and (millimeters)

* Glass-plastic encapsulation technique is covered by Patent No. 3,996,602 and brazed-lead assembly by Patent No. 3,930,306

SUPERECTIFIER®

FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ High temperature metallurgically bonded construction
- ◆ Glass passivated cavity-free junction
- ◆ Capable of meeting environmental standards of MIL-S-19500
- ◆ Fast switching for high efficiency
- ◆ 2.0 Ampere operation at $T_A=55^\circ\text{C}$ with no thermal runaway
- ◆ Typical I_R less than $0.2\mu\text{A}$
- ◆ High temperature soldering guaranteed: $350^\circ\text{C}/10$ seconds, $0.375"$ (9.5mm) lead length, 5 lbs. (2.3kg) tension

MECHANICAL DATA

Case: Molded plastic over solid glass body
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.03 ounce, 0.8 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	RGP 20A	RGP 20B	RGP 20D	RGP 20G	RGP 20J	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	Volts
Maximum average forward rectified current $0.375"$ (9.5mm) lead length at $T_A=55^\circ\text{C}$	$I_{(AV)}$	2.0					Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	80.0					Amps
Maximum instantaneous forward voltage at 2.0A	V_F	1.3					Volts
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=125^\circ\text{C}$	I_R	5.0 100.0					μA
Maximum full load reverse current, full cycle average, $0.375"$ (9.5mm) lead length at $T_A=55^\circ\text{C}$	$I_{R(AV)}$	100.0					μA
Maximum reverse recovery time (NOTE 1)	t_{rr}	150.0				250	ns
Typical junction capacitance (NOTE 2)	C_J	35.0					pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	22.0					$^\circ\text{C}/\text{W}$
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +175					$^\circ\text{C}$

NOTES:

- (1) Reverse 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 length, P.C.B. mounted

RATINGS AND CHARACTERISTIC CURVES RGP20A THRU RGP20J

