

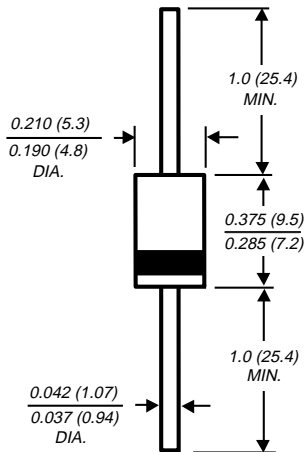
# RGP20A THRU RGP20J

## 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  $25^\circ\text{C}$  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					$\mu\text{A}$
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					$\mu\text{A}$
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

