

Reverse Voltage 50 to 600V
Forward Current 2.0AGlass Passivated Junction
Fast Switching Rectifier

Case Style GP20

Features

- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- High temperature metallurgically bonded construction
- Cavity-free glass passivated junction
- Capable of meeting environmental standards of MIL-S-19500
- 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

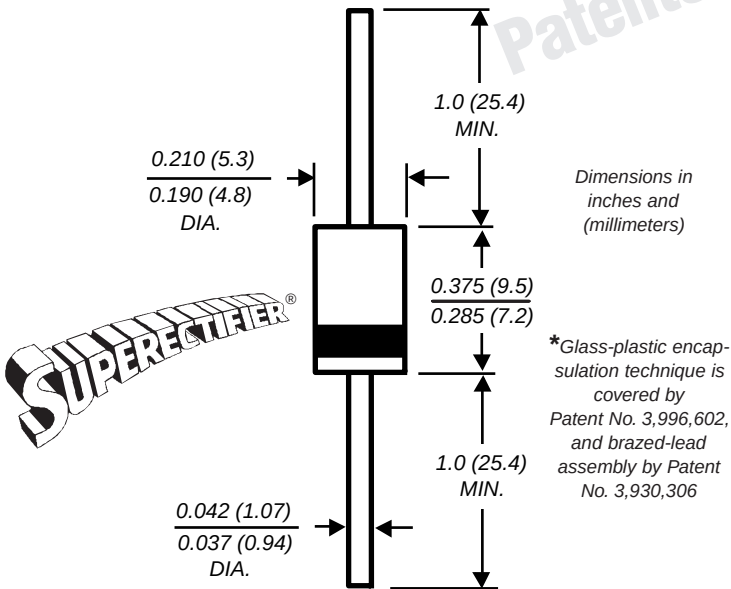
Weight: 0.03 oz., 0.8 g

Packaging codes/options:

1/Bulk - 1.5K per bulk box

4/1.4K per 13" reel (52mm Tape)

23/1K per Ammo. box (52mm Tape)

Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	RGP 20A	RGP 20B	RGP 20D	RGP 20G	RGP 20J	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A=55^\circ\text{C}$	$I_F(AV)$	2.0					A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	80					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					μA
Typical thermal resistance ⁽¹⁾	$R_{\theta JA}$	22					$^\circ\text{C}/\text{W}$
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +175					$^\circ\text{C}$

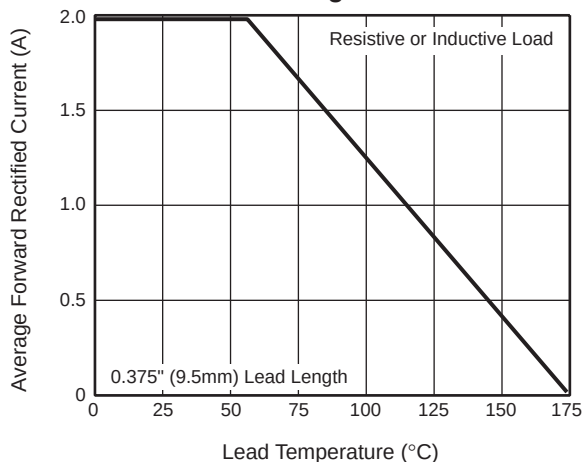
Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Maximum instantaneous forward voltage at 2.0A	V_F	1.3	V
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	μA
Maximum reverse recovery time at $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$	t_{rr}	150	250 ns
Typical junction capacitance at 4.0V, 1MHz	C_J	35	pF

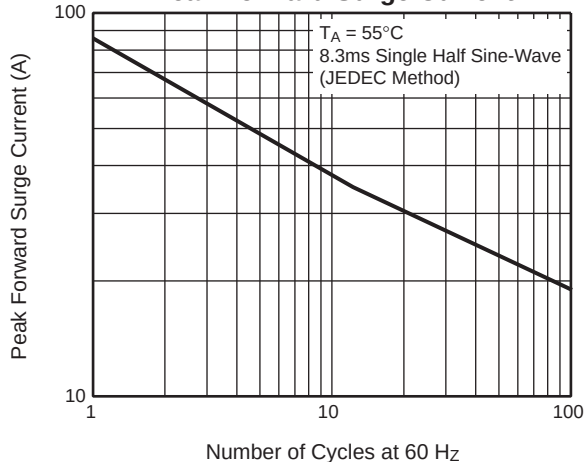
Note: (1) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

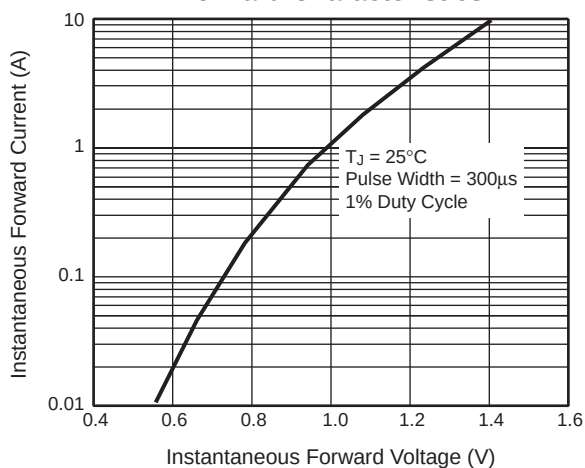
**Fig. 1 — Forward Current
Derating Curve**



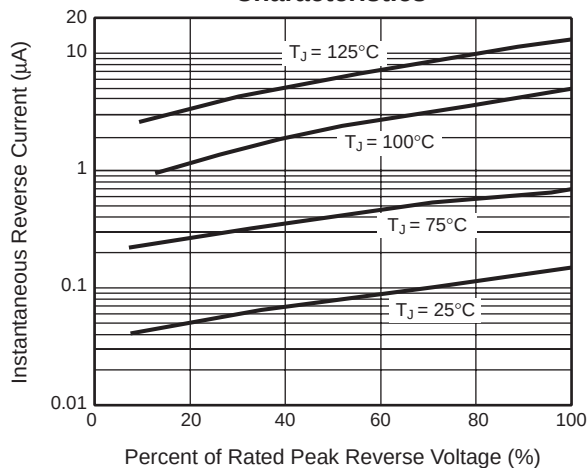
**Fig. 2 — Maximum Non-Repetitive
Peak Forward Surge Current**



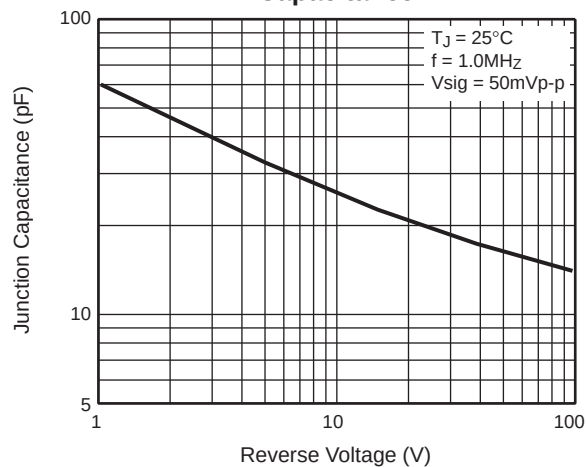
**Fig. 3 — Typical Instantaneous
Forward Characteristics**



**Fig. 4 — Typical Reverse
Characteristics**



**Fig. 5 — Typical Junction
Capacitance**



**Fig. 6 — Typical Transient
Thermal Impedance**

