



GP20A thru GP20M

Glass Passivated Junction Rectifiers
Reverse Voltage 50 to 1000 Volts Forward Current 2.0 Amperes

Features

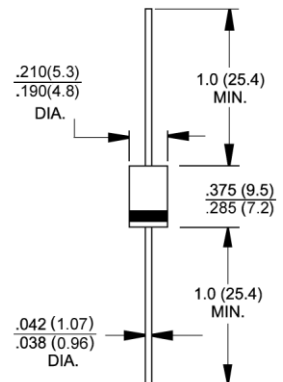
- ◆ Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- ◆ High temperature metallurgically bonded construction
- ◆ Cavity-free glass passivated junction
- ◆ Capable of meeting environmental standards of MIL-S-19500
- ◆ 2.0 Amperes operation at $T_A=55^\circ\text{C}$ with no thermal runaway
- ◆ Typical I_{FR} less than $0.1\mu\text{A}$
- ◆ High temperature soldering guaranteed: $350^\circ\text{C}/10$ seconds, $0.375"$ (9.5mm) lead length, 5 lbs. (2.3kg) tension



DO-201AE

Mechanical Data

- ◆ Case: Molded plastic over glass body
- ◆ Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
- ◆ Polarity: Band denotes cathode end
- ◆ Mounting Position: Any
- ◆ Weight: 0.014 ounce, 0.395 gram



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbols	GP20A	GP20B	GP20D	GP20G	GP20J	GP20K	GP20M	Units
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A=55^\circ\text{C}$	$I_{F(AV)}$					2.0			Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}					65.0			Amps
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
Maximum instantaneous forward voltage at 2.0A	V_F					1.1			Volts
Maximum DC reverse current at rated DC blocking voltage	I_R					5.0 100			μA
Typical reverse recovery time at $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_T=0.25\text{A}$	t_{rr}					1.0			μs
Typical junction capacitance at 4.0V, 1MHz	C_J					40.0			pF
Typical thermal resistance (Note 1)	$R_{\theta JA}$ $R_{\theta JL}$					25.0 10.0			$^\circ\text{C/W}$
Operating junction and storage temperature range	T_J, T_{STG}					-55 to +150			$^\circ\text{C}$

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

RATINGS AND CHARACTERISTIC CURVES

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

