

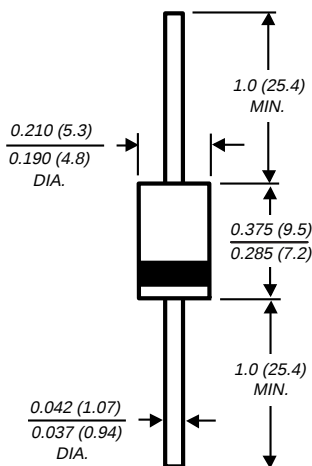
GP20A THRU GP20J

GLASS PASSIVATED JUNCTION 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

SUPRECTIFIER®

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
- ♦ 2.0 Ampere operation at $T_A = 55^\circ\text{C}$ with no thermal runaway
- ♦ Typical I_R 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

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: 0.03 ounce, 0.8 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	GP 20A	GP 20B	GP 20D	GP 20G	GP 20J	UNITS
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	Volts
Maximum RMS voltage	VRMS	35	70	140	280	420	Volts
Maximum DC blocking voltage	VDC	50	100	200	400	600	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at TA=55°C	l(AV)	2.0					Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	65.0					Amps
Maximum instantaneous forward voltage at 2.0A	VF	1.2		1.1			Volts
Maximum reverse current at rated DC blocking voltage	IR	5.0					μA
Maximum full load reverse current, full cycle average 0.375" (9.5mm) lead length at TA=55°C	IR(AV)	100.0					μA
Typical reverse recovery time (NOTE 1)	trr	2.5					μs
Typical junction capacitance (NOTE 2)	CJ	40.0					pF
Typical thermal resistance (NOTE 3)	RθJA RθJL	25.0 10.0					°C/W
Operating junction and storage temperature range	TJ, TSTG	-65 to +175					°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 and from junction to lead at $0.375"$ (9.5mm) lead length P.C.B. mounted

RATINGS AND CHARACTERISTIC CURVES GP20A THRU GP20J

FIG. 1 - FORWARD CURRENT DERATING CURVE

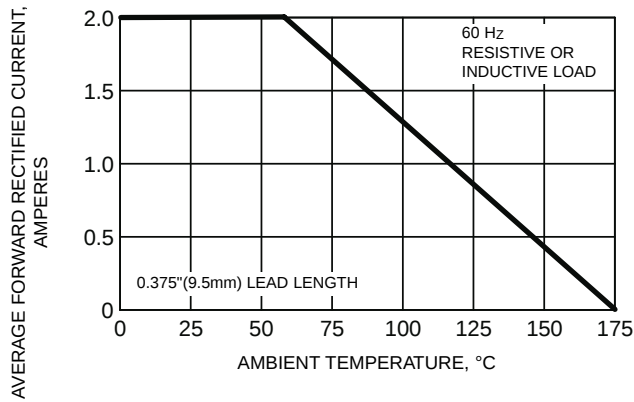


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

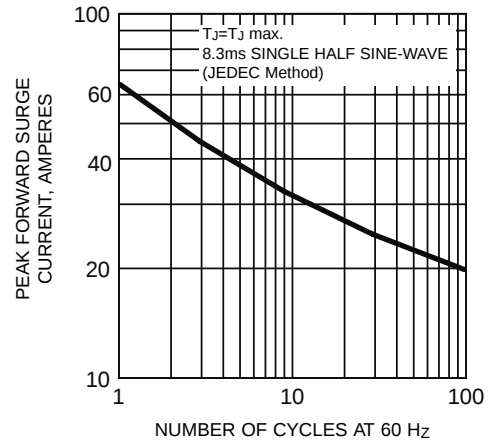


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

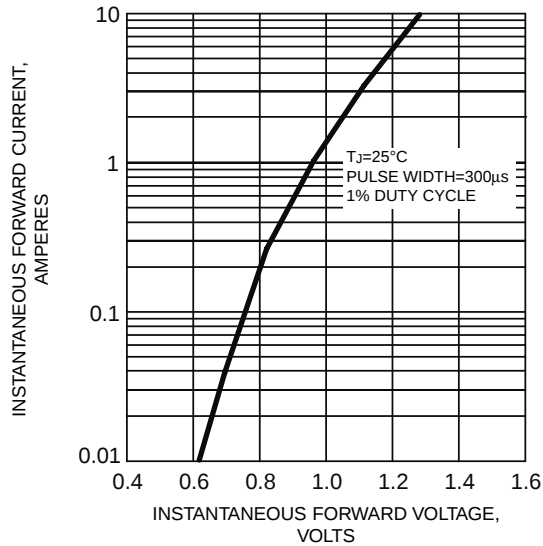


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

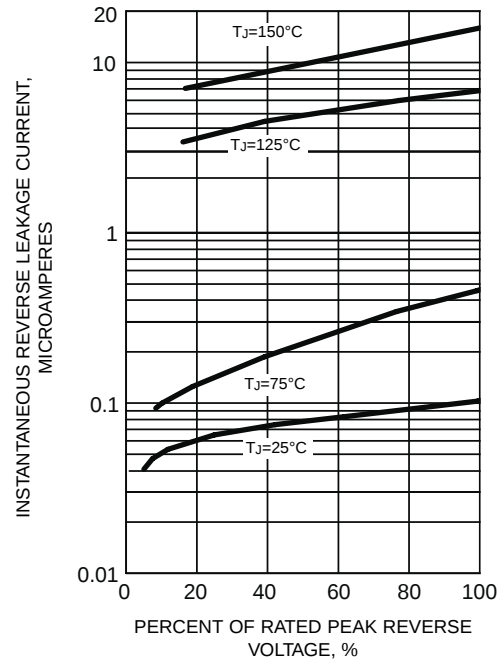


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

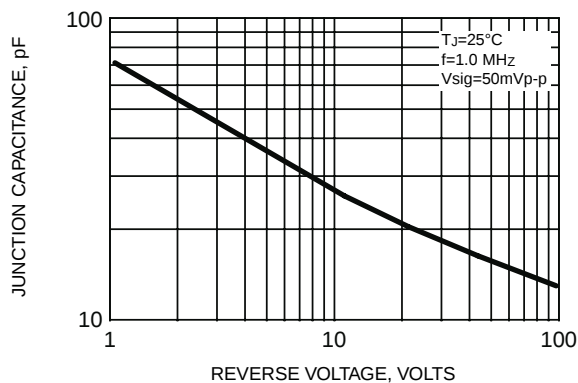


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

