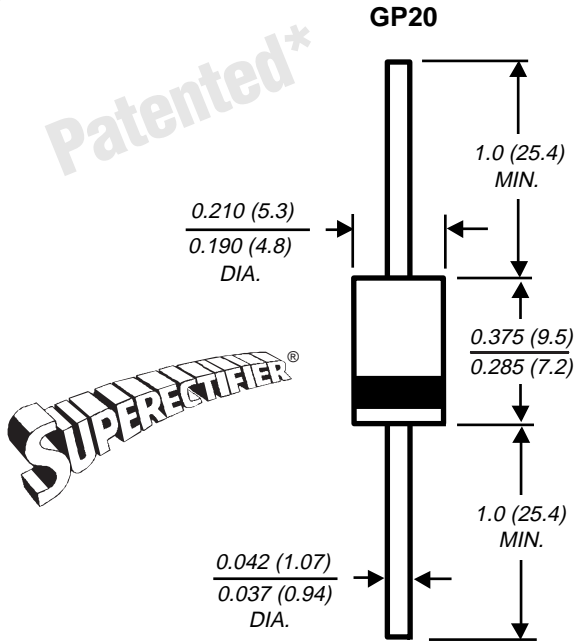


Glass Passivated Ultrafast Rectifier

Reverse Voltage 50 to 400 V

Forward Current 5.0 A



Dimensions in inches and (millimeters)

*Glass-plastic encapsulation is covered by

Patent No. 3,996,602 and brazed-lead assembly to Patent No. 3,930,306

Features

- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- Cavity-free glass passivated junction
- Ultrafast recovery time for high efficiency
- Low forward voltage, high current capability
- Low leakage current
- High surge current capability
- High temperature metallurgically bonded construction
- High temperature soldering guaranteed: 300°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

Mechanical Data

Case: Molded plastic over solid glass body

Terminals: 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 & Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	EGP 50A	EGP 50B	EGP 50C	EGP 50D	EGP 50F	EGP 50G	UNITS
Maximum recurrent peak reverse voltage	V _{RRM}	50	100	150	200	300	400	V
Maximum RMS voltage	V _{RMS}	35	70	105	140	210	280	V
Maximum DC blocking voltage	V _{DC}	50	100	150	200	300	400	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at T _L =55°C	I _{F(AV)}	5.0						A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	150						A
Typical thermal resistance (NOTE 1)	R _{θJA} R _{θJL}	20 5.0						°C/W
Operating junction and storage temperature range	T _J , T _{STG}	-65 to +150						°C

Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	EGP 50A	EGP 50B	EGP 50C	EGP 50D	EGP 50F	EGP 50G	UNITS
Maximum instantaneous forward voltage at 5.0A	V _F	0.95				1.25		V
Maximum DC reverse current at rated DC blocking voltage T _A = 25°C T _A = 125°C	I _R	5.0 50						μA
Maximum reverse recovery time at I _F = 0.5A, I _R = 1.0A, I _{rr} = 0.25A	t _{rr}	50						ns
Typical junction capacitance at 4.0V, 1MHz	C _J	95				75		pF

NOTES:

(1) Thermal resistance from junction to ambient, and from junction to lead at 0.375" (9.5mm) lead length, both leads measured attached to heat sinks

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

FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE

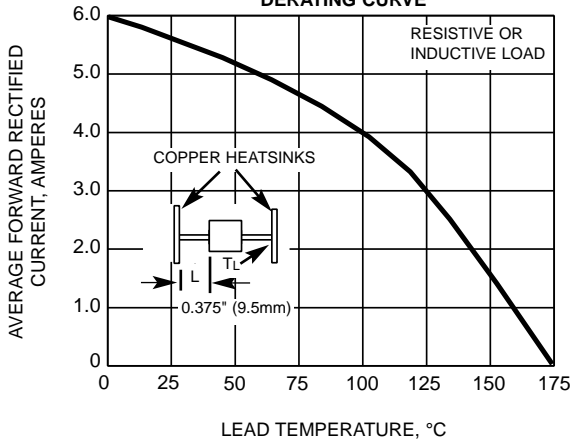


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

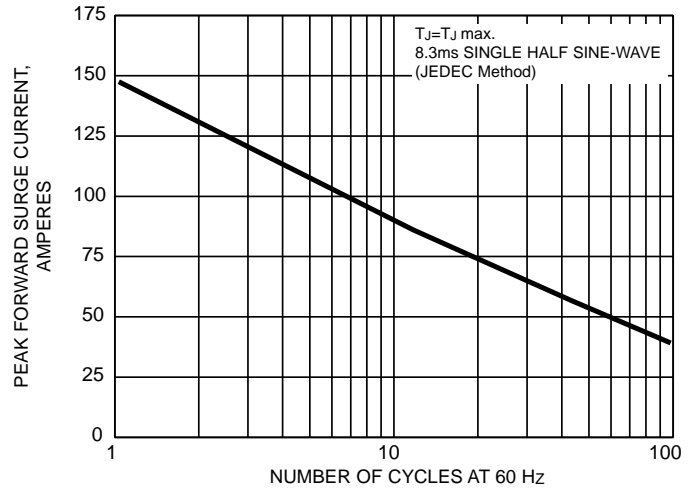


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

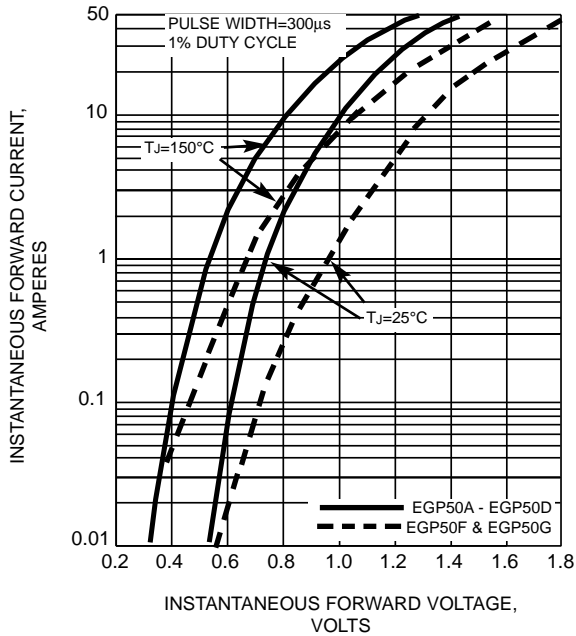


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

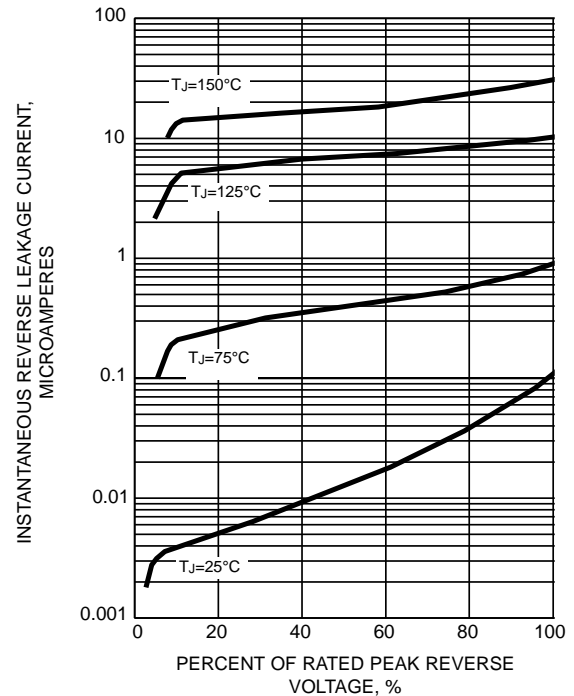


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

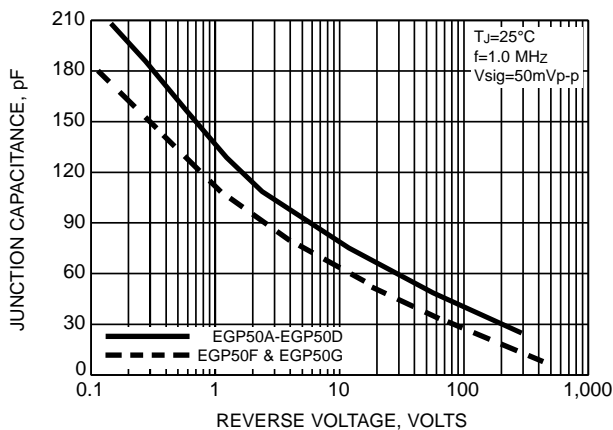


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

