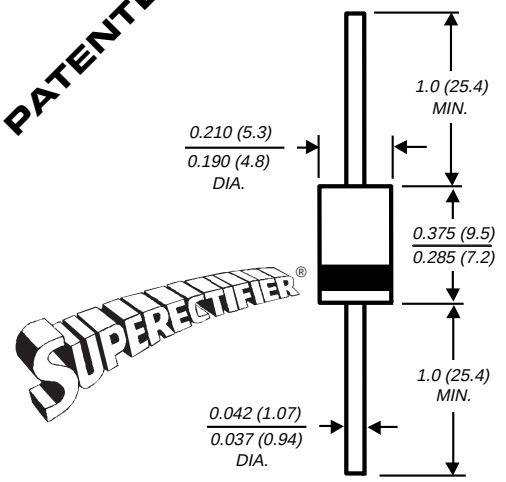
EGP50A THRU EGP50G

GLASS PASSIVATED FAST EFFICIENT RECTIFIER

Reverse Voltage - *50 to 400 Volts* ***Forward Current -*** *5.0 Amperes*

PATENTED*

Case Style GP20



Dimensions in inches and (millimeters)

* *Glass-plastic encapsulation technique is covered by Patent No. 3,996,602, brazed-lead assembly by Patent No. 3,930,306*

FEATURES



- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- Glass passivated cavity-free junction
- Superfast 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 AND 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 recurrent peak reverse voltage	V_{RRM}	50	100	150	200	300	400	Volts
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	Volts
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at T_L=55°C	$I_{(AV)}$	5.0						Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	150.0						Amps
Maximum instantaneous forward voltage at 5.0A	V_F	0.95				1.25		Volts
Maximum DC reverse current T_A=25°C at rated DC blocking voltage T_A=125°C	I_R	5.0 50.0						µA
Maximum reverse recovery time (NOTE 1)	trr	50.0						ns
Typical thermal resistance (NOTE 2)	$R_{\Theta JA}$ $R_{\Theta JL}$	20.0 5.0						°C\W
Typical junction capacitance (NOTE 3)	C_J	95				75		pF
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +150						°C

NOTES:
(1) Reverse recovery test conditions: I_F=0.5A, I_R=1.0A, Irr=0.25A
(2) Thermal resistance from junction to ambient and from junction of lead at 0.375" (9.5mm) lead length, both leads measured attached to heat sinks
(3) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

GENERAL SEMICONDUCTOR®

RATINGS AND CHARACTERISTIC CURVES EGP50A THRU EGP50G

FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE

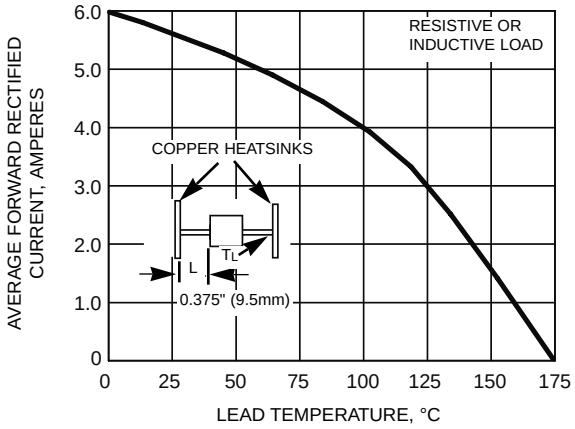


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

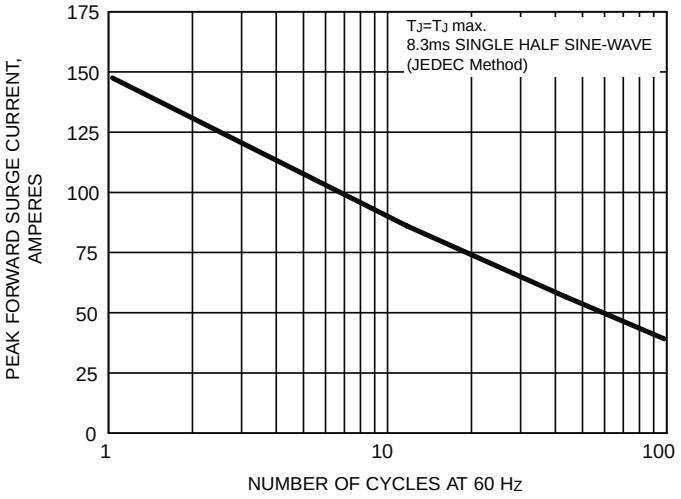


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

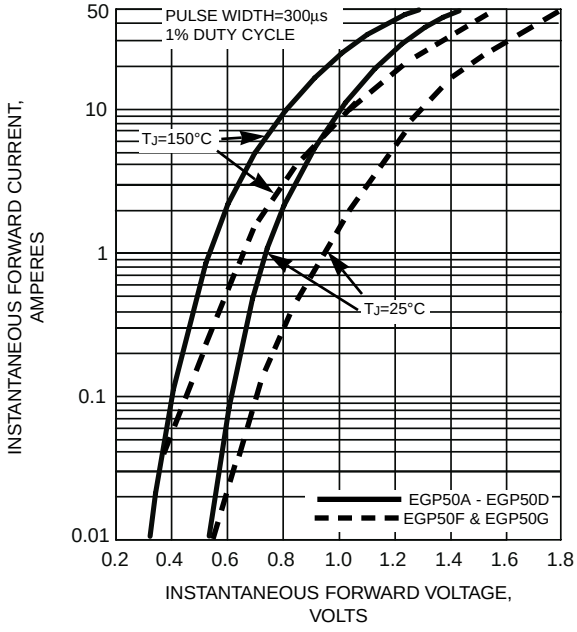


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

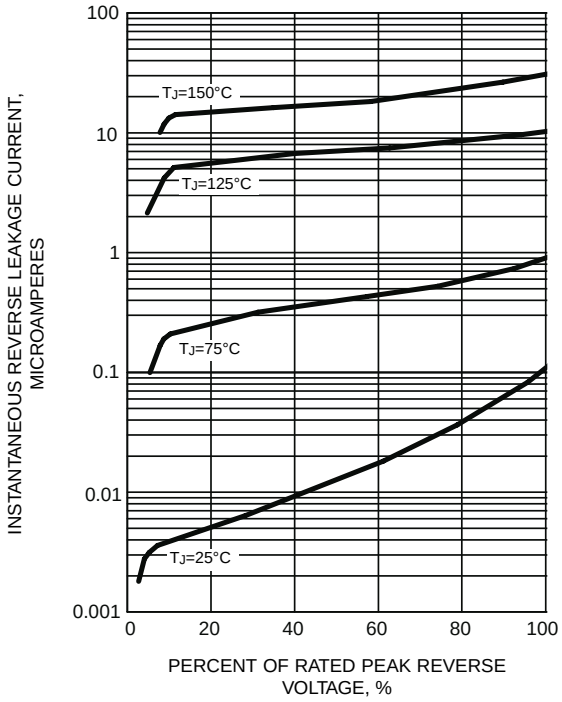


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

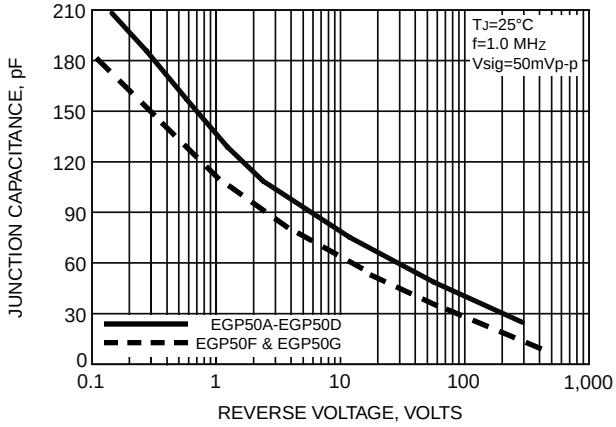
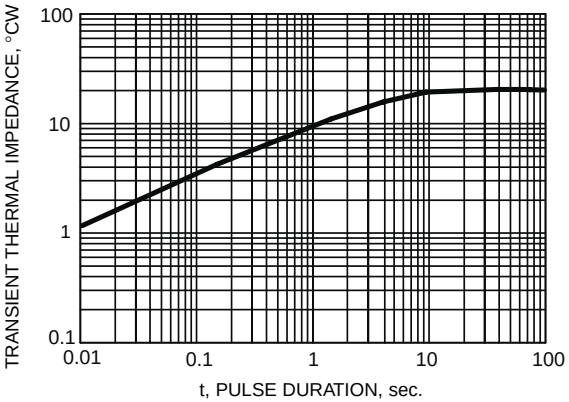


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE



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