

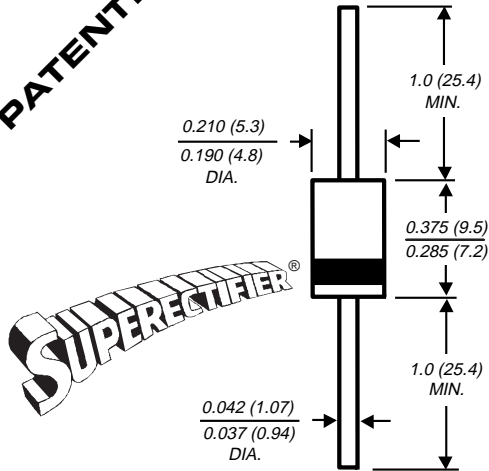
EGP50A THRU EGP50G

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 at rated DC blocking voltage	I _R	5.0 50.0						μA
Maximum reverse recovery time (NOTE 1)	trr	50.0						ns
Typical thermal resistance (NOTE 2)	R _{θJA} R _{θJL}	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, I_{rr}=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

RATINGS AND CHARACTERISTIC CURVES EGP50A THRU EGP50G

FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE

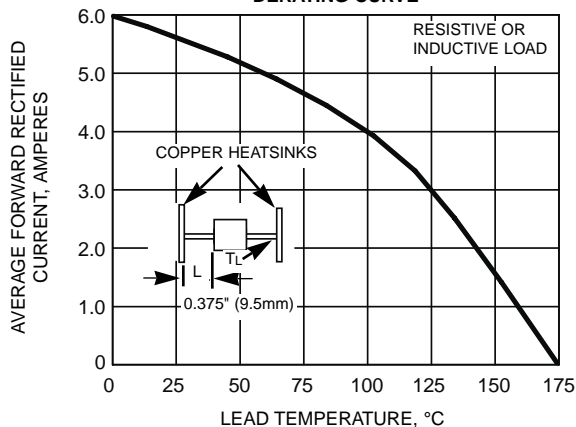


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

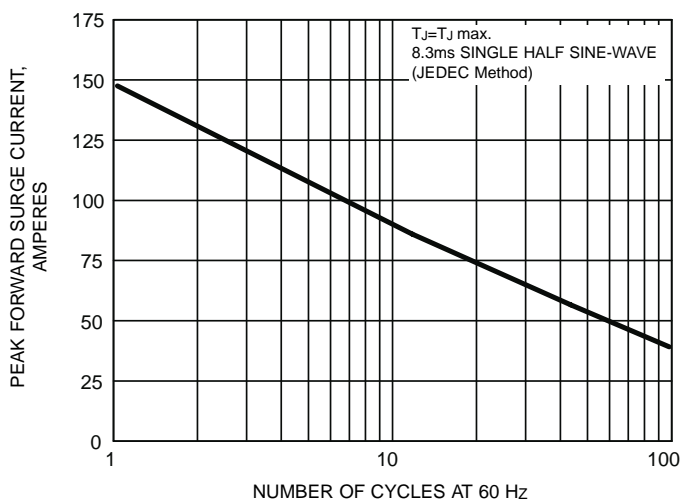


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

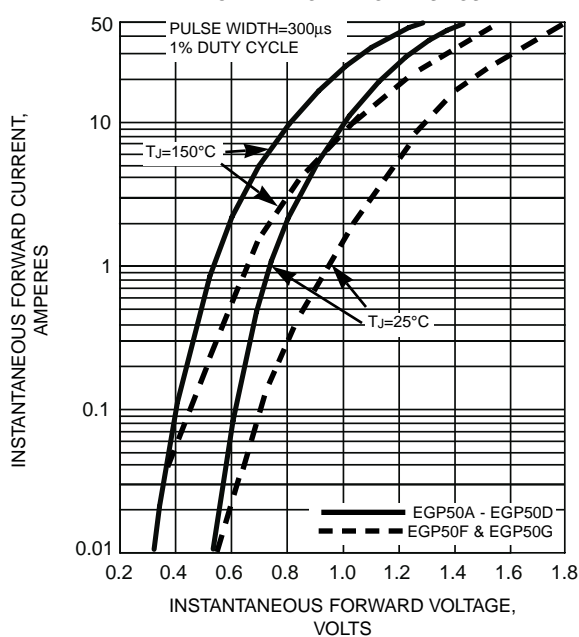


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

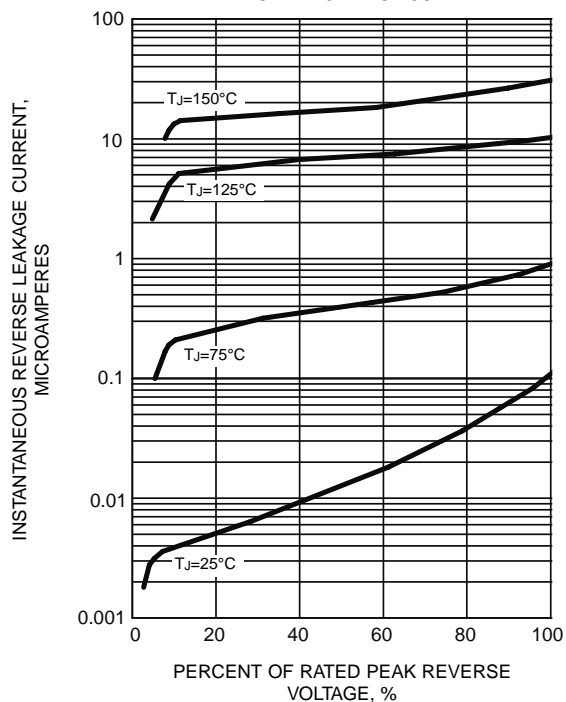


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

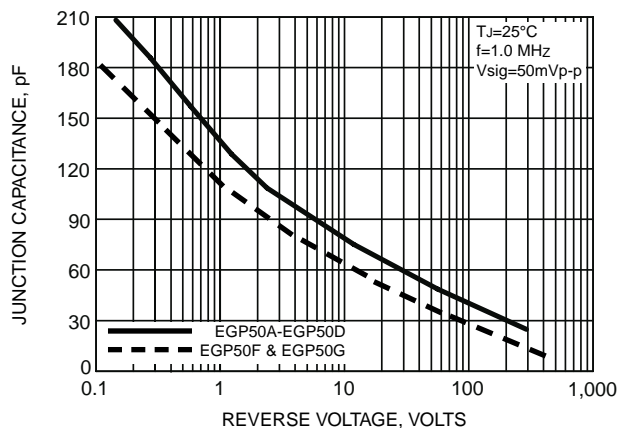


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

