

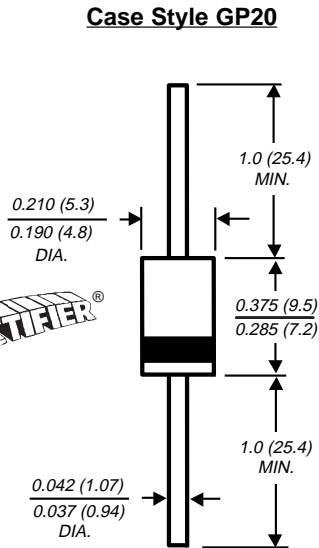
# EGP30A THRU EGP30G

## GLASS PASSIVATED FAST EFFICIENT RECTIFIER

**Forward Voltage - 50 to 400 Volts      Reverse Current - 3.0 Amperes**

**PATENTED \***

**SUPERRECTIFIER®**



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

### 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:** Plated 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 30A	EGP 30B	EGP 30C	EGP 30D	EGP 30F	EGP 30G	UNITS
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	150	200	300	400	Volts
Maximum RMS voltage	V <sub>RMS</sub>	35	70	105	140	210	280	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	150	200	300	400	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at T <sub>A</sub> =55°C	I <sub>(AV)</sub>	3.0						Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	125.0						Amps
Maximum instantaneous forward voltage at 3.0A	V <sub>F</sub>	0.95				1.25		Volts
Maximum DC reverse current T <sub>A</sub> =25°C at rated DC blocking voltage T <sub>A</sub> =125°C	I <sub>R</sub>	5.0 100.0						μA
Typical reverse recovery time (NOTE 1)	t <sub>rr</sub>	50.0						ns
Typical junction capacitance (NOTE 2)	C <sub>J</sub>	95.0				75.0		pF
Typical thermal resistance (NOTE 3)	R <sub>θJA</sub> R <sub>θJL</sub>	20.0 8.0						°C/W
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150						°C

#### NOTES:

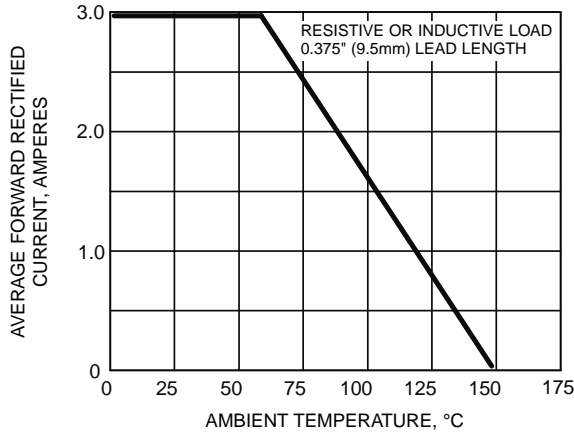
(1) Reverse recovery test conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>rr</sub>=0.25A

(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

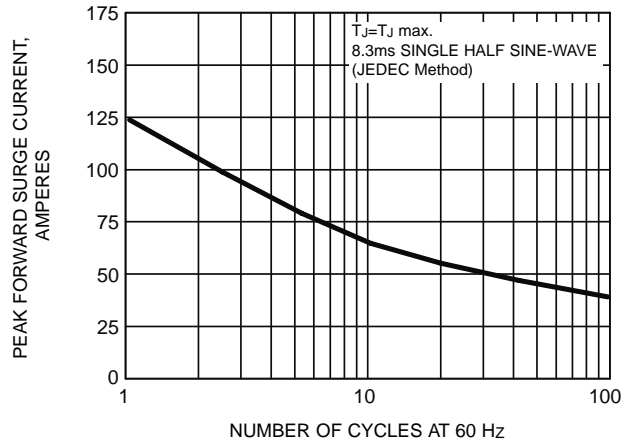
(3) Thermal resistance from junction to ambient, and from junction to lead at 0.375" (9.5mm) lead length, P.C.B. mounted

# RATINGS AND CHARACTERISTIC CURVES EGP30A THRU EGP30G

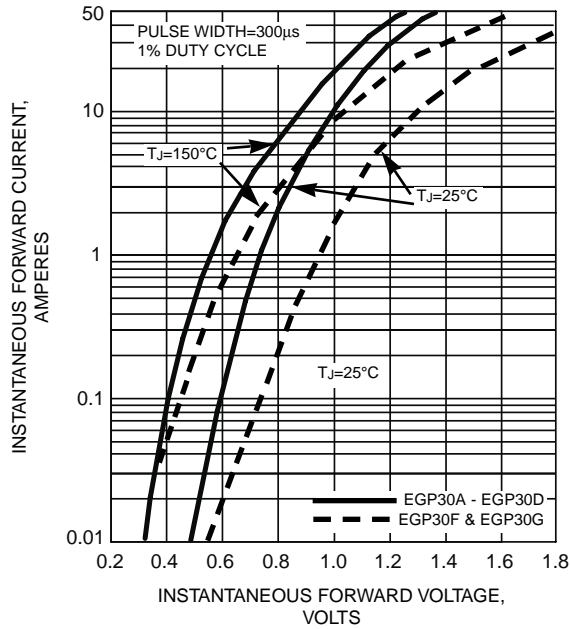
**FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE**



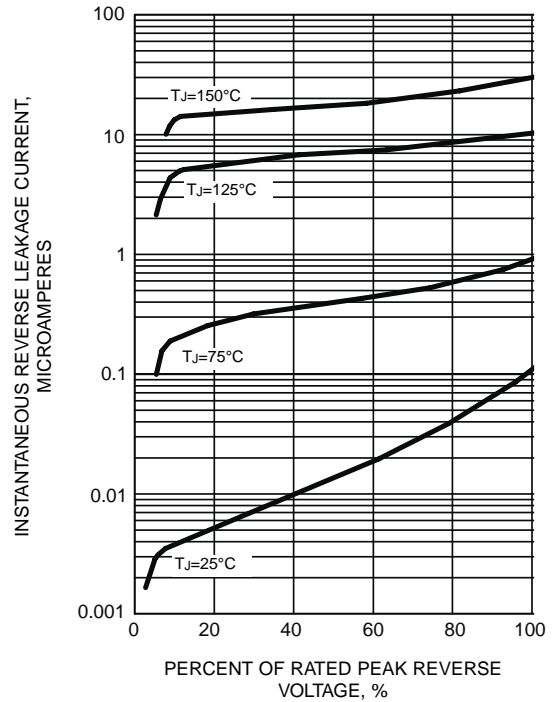
**FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



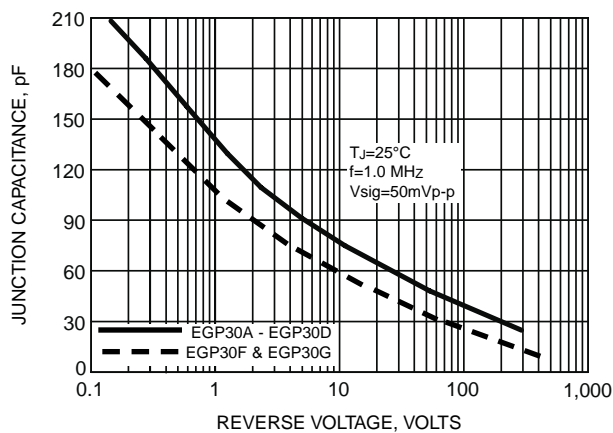
**FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS**



**FIG. 5 - TYPICAL JUNCTION CAPACITANCE**



**FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE**

