

EGP30A THRU EGP30G

GLASS PASSIVATED FAST EFFICIENT RECTIFIER

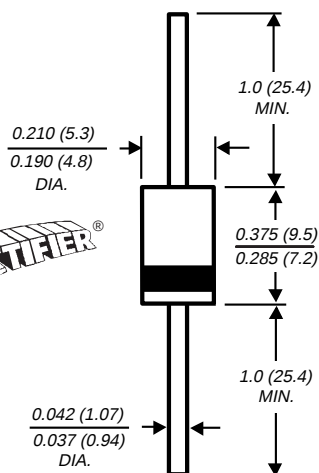
Forward Voltage - 50 to 400 Volts

Reverse Current - 3.0 Amperes

Case Style GP20

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	VRRM	50	100	150	200	300	400	Volts
Maximum RMS voltage	VRMS	35	70	105	140	210	280	Volts
Maximum DC blocking voltage	VDC	50	100	150	200	300	400	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at TA=55°C	l(AV)	3.0						Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	lFSM	125.0						Amps
Maximum instantaneous forward voltage at 3.0A	VF	0.95				1.25		Volts
Maximum DC reverse current at rated DC blocking voltage TA=25°C TA=125°C	lR	5.0 100.0						µA
Typical reverse recovery time (NOTE 1)	trr	50.0						ns
Typical junction capacitance (NOTE 2)	CJ	95.0				75.0		pF
Typical thermal resistance (NOTE 3)	RθJA RθJL	20.0 8.0						°C/W
Operating junction and storage temperature range	TJ, TSTG	-65 to +150						°C

NOTES:

(1) Reverse recovery test conditions: I_F=0.5A, I_R=1.0A, I_{rr}=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

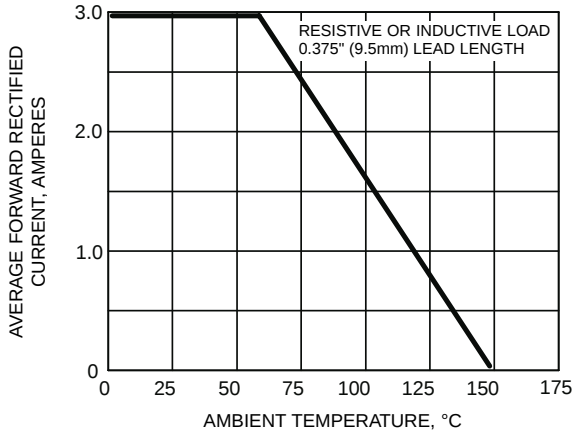


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

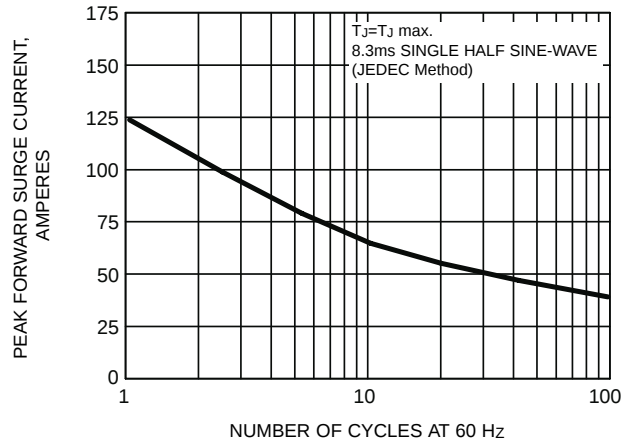


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

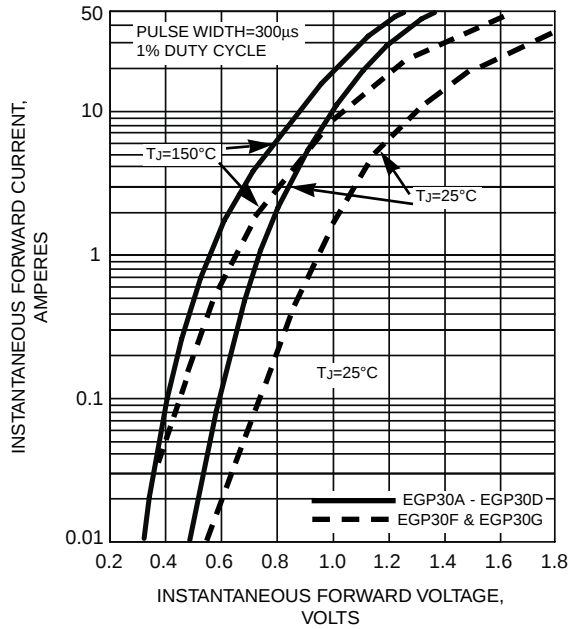


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

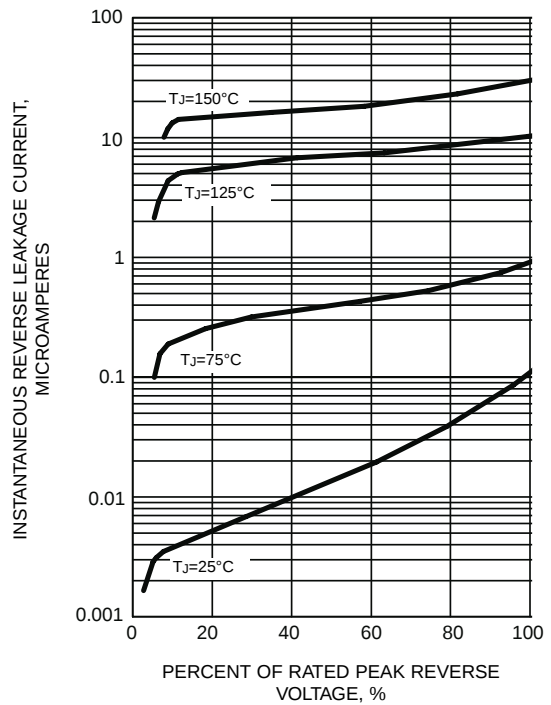


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

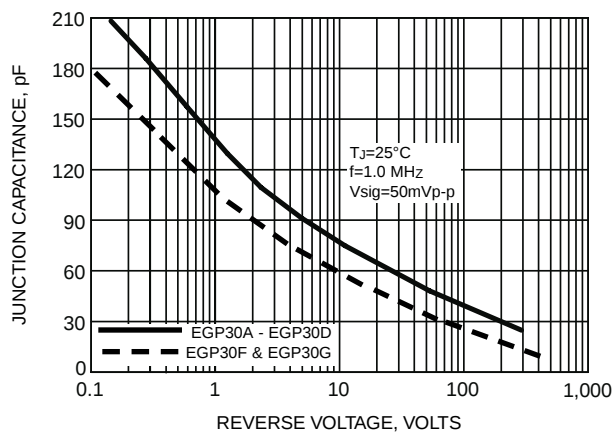


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

