

# EGP20A THRU EGP20G

## GLASS PASSIVATED FAST EFFICIENT RECTIFIER

Reverse Voltage - 50 to 400 Volts      Forward Current - 2.0 Amperes

### 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

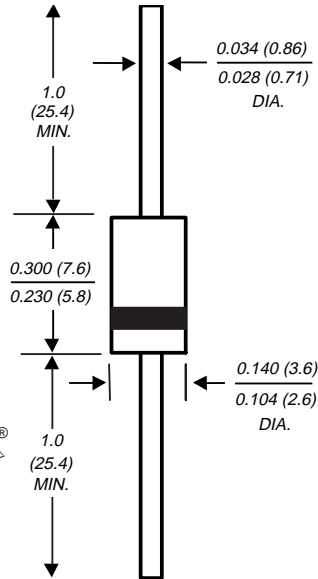


### MECHANICAL DATA

**Case:** JEDEC DO-204AC 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:** 0.015 ounce, 0.4 gram

**PATENTED \***

DO-204AC



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

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

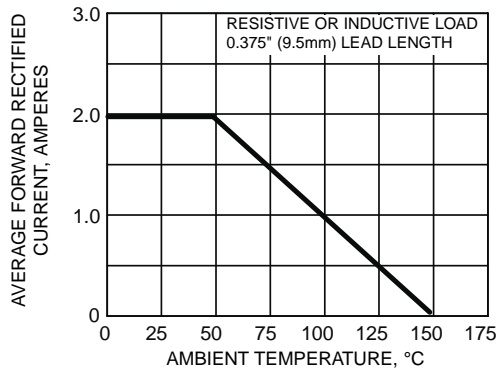
	SYMBOLS	EGP 20A	EGP 20B	EGP 20C	EGP 20D	EGP 20F	EGP 20G	UNITS
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	150	200	300	400	Volts
Maximum RMS voltage	V <sub>RMS</sub>	35	70	105	140	210	280	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	150	200	300	400	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at T <sub>A</sub> =55°C	I <sub>(AV)</sub>	2.0						Amps
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	75.0						Amps
Maximum instantaneous forward voltage at 2.0A	V <sub>F</sub>	0.95				1.25		Volts
Maximum DC reverse current at rated DC blocking voltage	I <sub>R</sub>	T <sub>A</sub> =25°C		5.0		T <sub>A</sub> =125°C		μA
				100.0				
Maximum reverse recovery time (NOTE 1)	t <sub>rr</sub>	50.0						ns
Typical junction capacitance (NOTE 2)	C <sub>J</sub>	70.0				45.0		pF
Typical thermal resistance (NOTE 3)	R <sub>θJA</sub> R <sub>θJL</sub>	40.0				15.0		°C/W
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150						°C

**NOTES:**

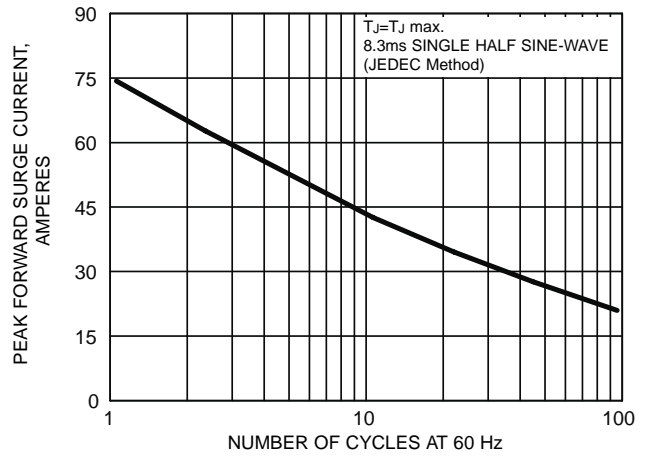
- (1) Reverse recovery test conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>rr</sub>=0.25A
- (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (3) Thermal resistance from junction to ambient, and from junction to lead at 0.375" (9.5mm) lead length, P.C.B. mounted

# RATINGS AND CHARACTERISTIC CURVES EGP20A THRU EGP20G

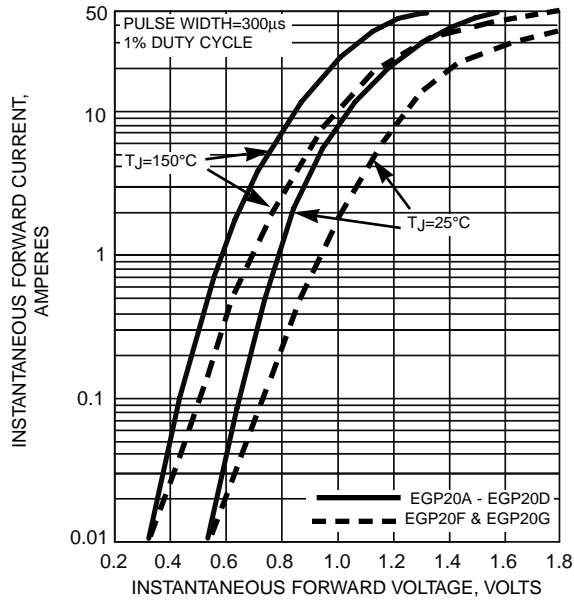
**FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE**



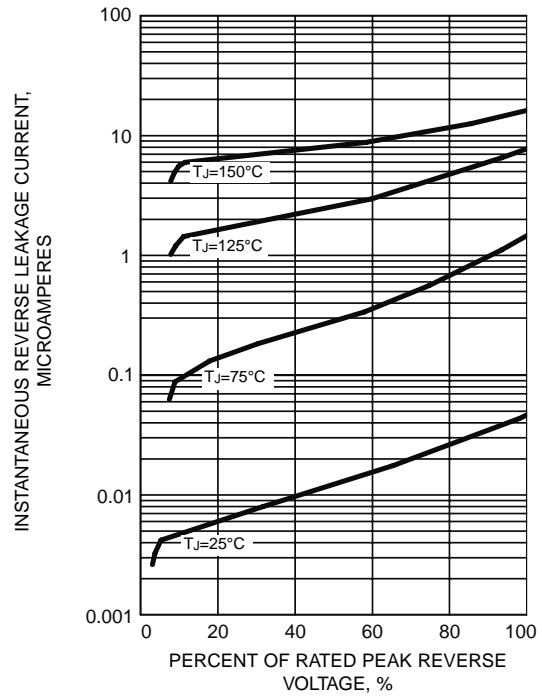
**FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



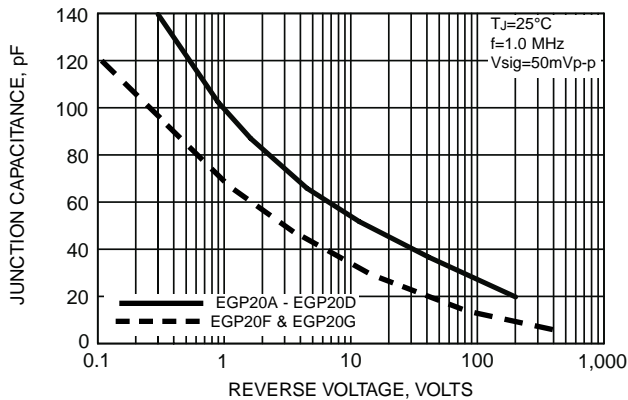
**FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG. 4 - TYPICAL REVERSE CHARACTERISTICS**



**FIG. 5 - TYPICAL JUNCTION CAPACITANCE**



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

