GENERAL SEMICONDUCTOR®

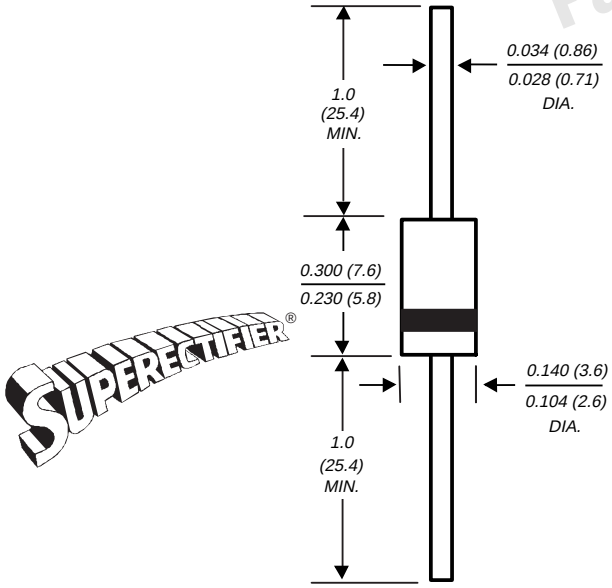
EGP20A THRU EGP20G

Glass Passivated Ultrafast Rectifier

Reverse Voltage 50 to 400 V
Forward Current 2.0 A

Patented*

DO-204AC (DO-15)



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
- Cavity-free glass passivated junction
- Ultrafast 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

Maximum Ratings & Thermal 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_{RRM}	50	100	150	200	300	400	V
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	V
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at T_A=55°C	$I_{F(AV)}$	2.0						A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	75						A
Typical thermal resistance (NOTE 1)	$R_{\Theta JA}$ $R_{\Theta JL}$	40 15						°C/W
Operating and storage temperature range	T_J, T_{STG}	-65 to +150						°C

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 instantaneous forward voltage at 2.0A	V_F	0.95				1.25		V
Maximum DC reverse current at rated DC blocking voltage T_A = 25°C T_A =125°C	I_R	5.0 100						µA
Maximum reverse recovery time at I_F = 0.5A, I_R = 1.0A, I_{rr} = 0.25A	t_{rr}	50						ns
Typical junction capacitance at 4.0V, 1MHz	C_J	70				45		ns

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

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Ratings and Characteristic Curves (T_A = 25°C unless otherwise noted)

FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE

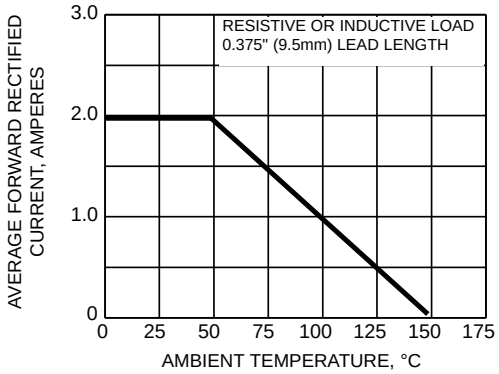

FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

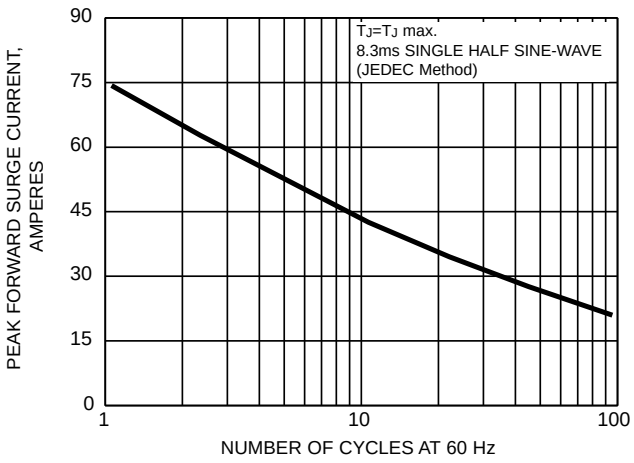

FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

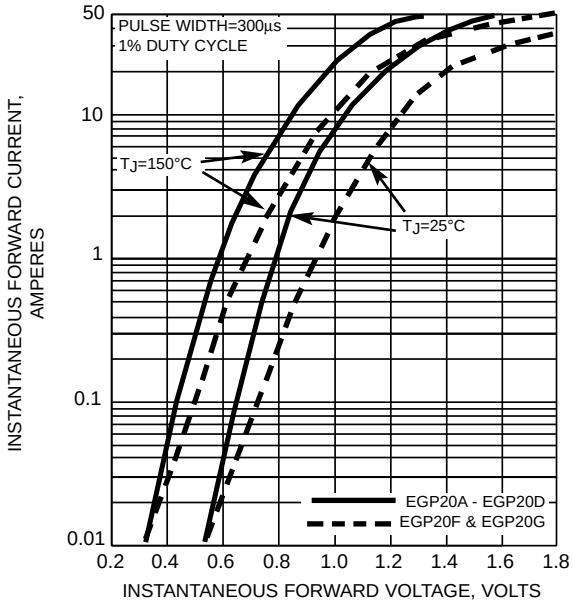

FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

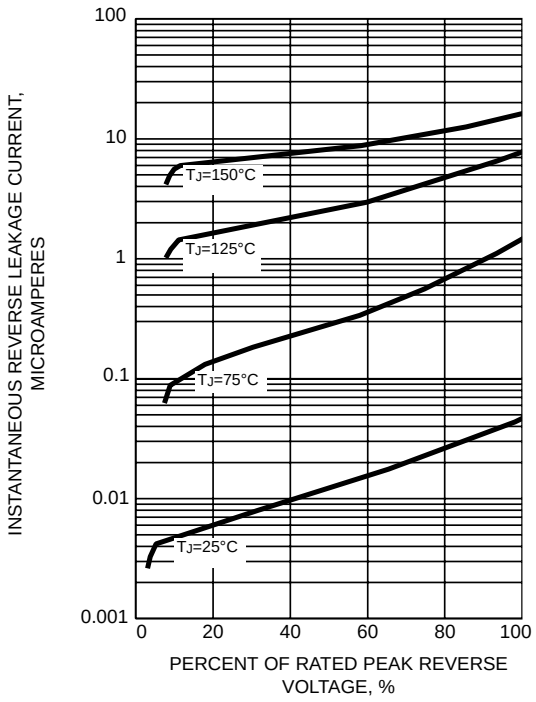

FIG. 5 - TYPICAL JUNCTION CAPACITANCE

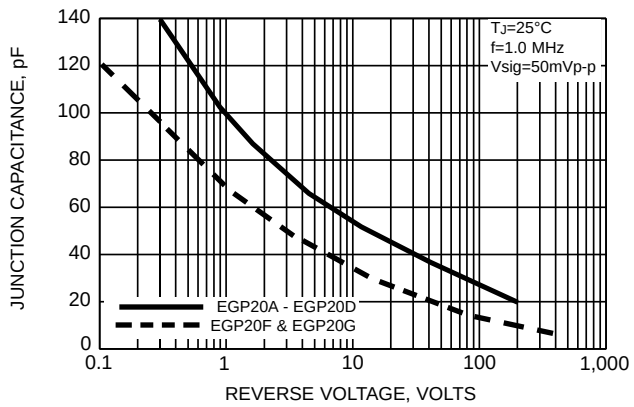

FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE