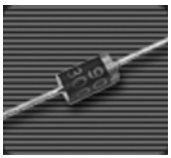
EGP30A thru EGP30G

Glass Passivated Junction Fast Efficient Rectifiers
Reverse Voltage 50 to 400 Volts Forward Current 3.0 Amperes

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



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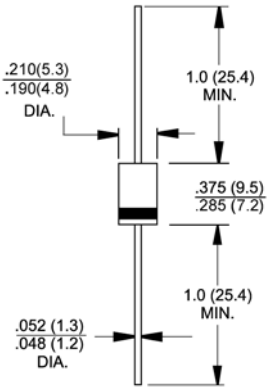

Dimensions in inches and (millimeters)

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: 0.04 ounce, 1.1 grams

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	EGP 30A	EGP 30B	EGP 30C	EGP 30D	EGP 30F	EGP 30G	Unit
Maximum repetitive 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_A=55°C	$I_{F(AV)}$	3.0						Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	125.0						Amps
Maximum instantaneous forward voltage at 3.0A	V_F	0.95				1.25		Volts
Maximum DC reverse current @T_A=25°C at rated DC blocking voltage @T_A=125°C	I_R	5.0 100						uA
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	85.0				75.0		pF
Typical thermal resistance (Note 1)	$R_{\theta JA}$ $R_{\theta JL}$	20.0 8.0						°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150						°C

Notes: 1. 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

(T_A = 25°C unless otherwise noted)

Fig. 1 – Maximum Forward Current Derating Curve

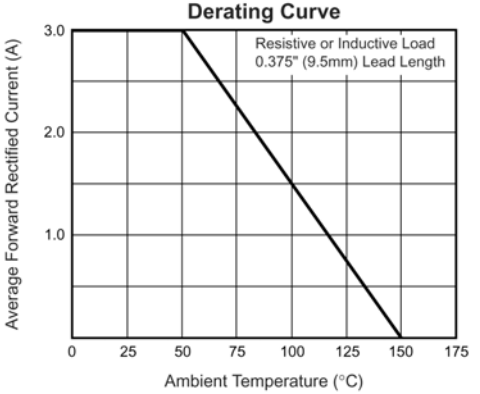

Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

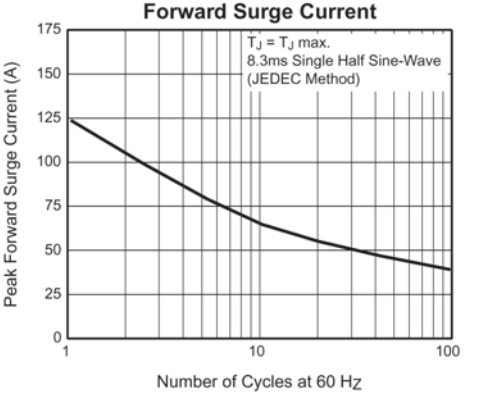

Fig. 3 – Typical Instantaneous Forward Characteristics

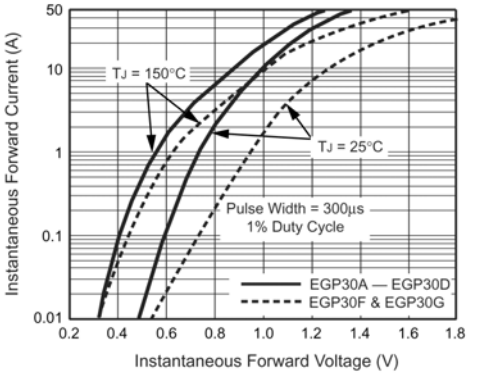

Fig. 4 – Typical Reverse Leakage Characteristics

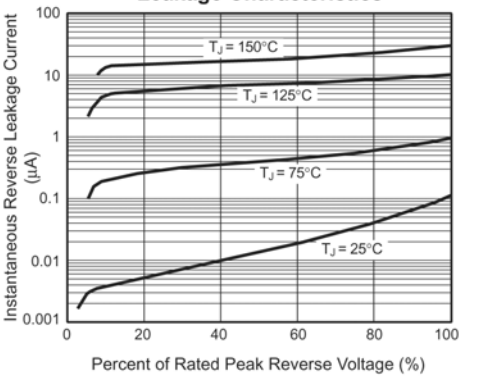

Fig. 5 – Typical Junction Capacitance

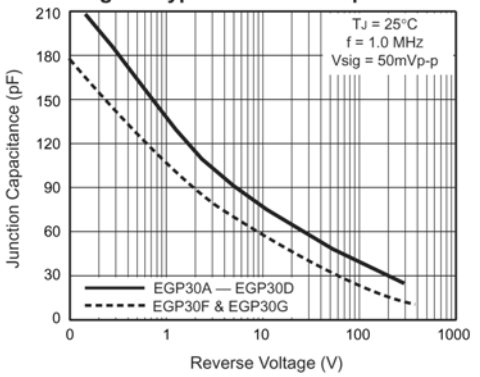

Fig. 6 – Typical Transient Thermal Impedance