



EGP30A THRU EGP30K

3.0 AMPS. Glass Passivated High Efficient Plastic Rectifiers



Voltage Range
50 to 800 Volts
Current
3.0 Amperes

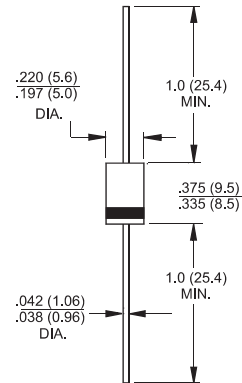
Features

- ✦ Plastic material used carries Underwriters Laboratories Classification 94V-O
- ✦ 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 / 10seconds, .375"(9.5mm) lead length at 5 lbs., (2.3kg) tension

Mechanical Data

- ✦ Case: JEDEC DO-201 molded plastic over solid glass body
- ✦ Lead: Plated axial leads, solderable per MIL-STD-750, Method 2026
- ✦ Polarity: Color band denotes cathode end
- ✦ Mounting position: Any
- ✦ Weight: 0.048 ounce, 1.28 gram

DO-201



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

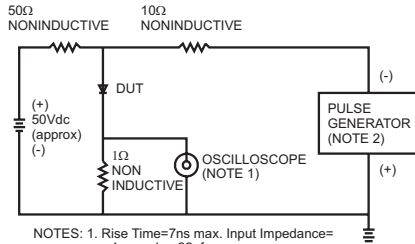
For capacitive load, derate current by 20%

Type Number	Symbol	EGP 30A	EGP 30B	EGP 30D	EGP 30F	EGP 30G	EGP 30J	EGP 30K	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	300	400	600	800	V
Maximum RMS Voltage	V_{RMS}	35	70	140	210	280	420	560	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	300	400	600	800	V
Maximum Average Forward Rectified Current 0.375"(9.5mm) Lead Length @ $T_A = 55^\circ\text{C}$	$I_{(AV)}$	3.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	125							A
Maximum Instantaneous Forward Voltage @ 3.0A	V_F	0.95		1.25		1.7		V	
Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=125^\circ\text{C}$	I_R	5.0 100							μA μA
Maximum Reverse Recovery Time (Note 1) $T_A=25^\circ\text{C}$	T_{rr}	50				75			nS
Typical Junction Capacitance (Note 2)	C_j	60			50			pF	
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	40							$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J T_{STG}	-65 to + 150							$^\circ\text{C}$

- Notes: 1. Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$
 2. Measured at 1.0 MHz and Applied Reverse Voltage of 4.0V D.C.
 3. Mount on Cu-Pad Size 16mm x 16mm on P.C.B.

RATINGS AND CHARACTERISTIC CURVES (EGP30A THRU EGP30K)

FIG.1- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



NOTES: 1. Rise Time=7ns max. Input Impedance=1 megohm 22pf
2. Rise Time=10ns max. Source Impedance=50 ohms

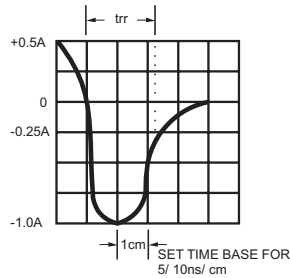


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

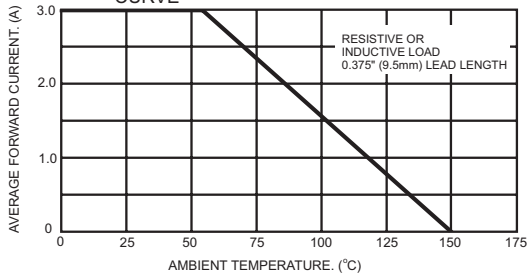


FIG.5- TYPICAL REVERSE CHARACTERISTICS

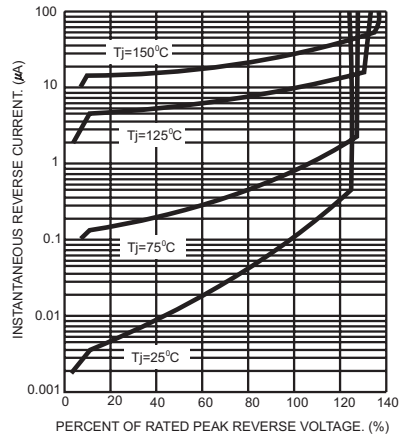


FIG.3- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

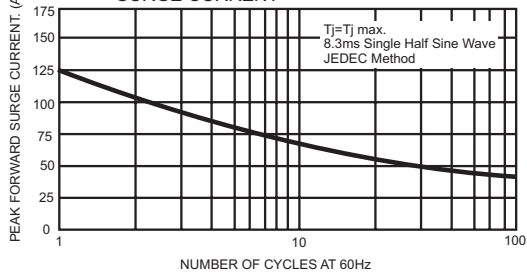


FIG.6- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

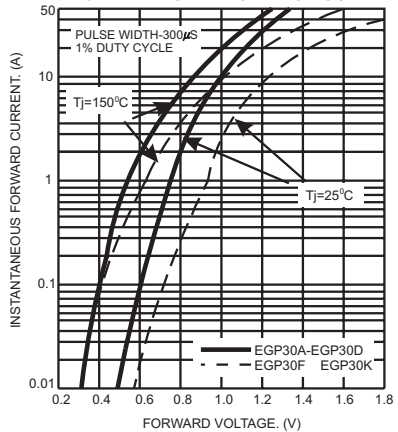


FIG.4- TYPICAL JUNCTION CAPACITANCE

