



EGP30A THRU EGP30K

3.0 AMPS. Glass Passivated High Efficient Plastic Rectifiers



Voltage Range
50 to 800 Volts
Current
3.0 Amperes

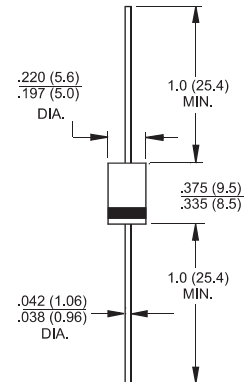
Features

- ✧ 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°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°C at Rated DC Blocking Voltage @ T _A =125°C	I _R	5.0 100							uA uA
Maximum Reverse Recovery Time (Note 1) T _A =25°C	T _{rr}	50					75		nS
Typical Junction Capacitance (Note 2)	C _j	60			50				pF
Typical Thermal Resistance (Note 3)	R _{θJA}	40							°C/W
Operating and Storage Temperature Range	T _J T _{STG}	-65 to + 150							°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

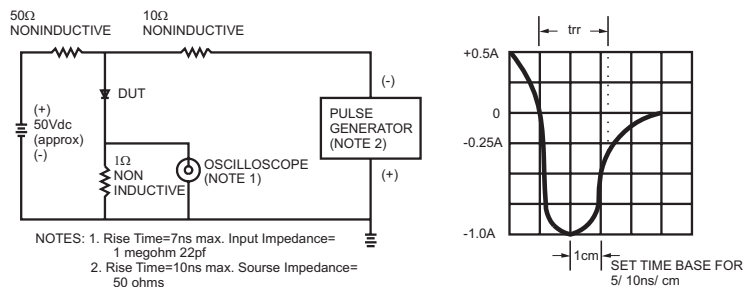


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

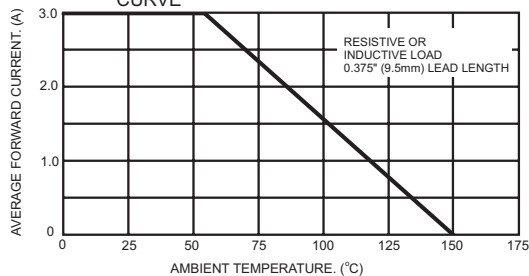


FIG.3- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

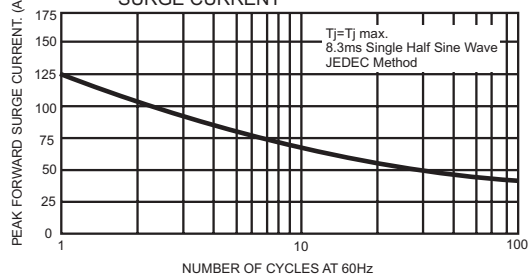


FIG.4- TYPICAL JUNCTION CAPACITANCE

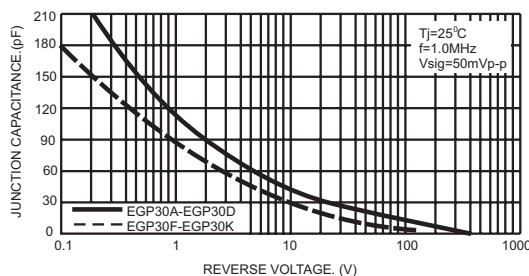


FIG.5- TYPICAL REVERSE CHARACTERISTICS

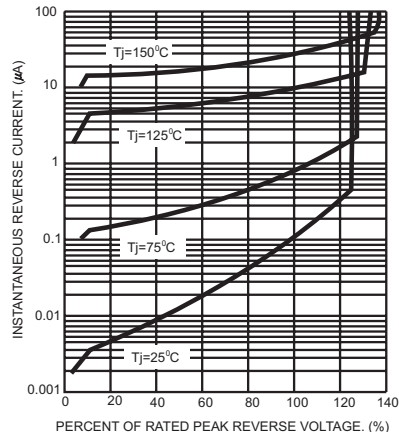


FIG.6- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

