



EGP10A THRU EGP10M

1.0 AMP. Glass Passivated High Efficient Plastic Rectifiers



Voltage Range
50 to 1000 Volts
Current
1.0 Ampere

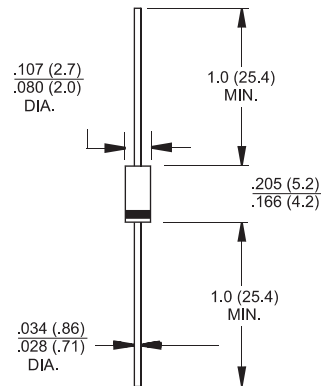
Features

- ✧ Plastic material used carries Underwriters Laboratory 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 soldering guaranteed:
300°C/10seconds, .375"(9.5mm) lead length at 5 lbs., (2.3kg) tension

Mechanical Data

- ✧ Cases: JEDEC DO-41 molded plastic over glass body
- ✧ Lead: Plated axial leads, solderable per MIL-STD-750, Method 2026
- ✧ Polarity: Color band denotes cathode end
- ✧ Mounting position: Any
- ✧ Weight: 0.012 ounce, 0.3 gram

DO-41



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 10A	EGP 10B	EGP 10D	EGP 10F	EGP 10G	EGP 10J	EGP 10K	EGP 10M	Units
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	300	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	210	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	300	400	600	800	1000	V
Maximum Average Forward Rectified Current .375" (9.5mm) Lead Length @ T _A = 55°C	I _(AV)	1.0								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	30.0								A
Maximum Instantaneous Forward Voltage @ 1.0A	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	5.0 100.0								uA uA
Maximum Reverse Recovery Time (Note 1) T _J =25°C	T _{rr}	50					75			nS
Typical Junction Capacitance (Note 2)	C _j	20			15					pF
Typical Thermal Resistance (Note 3)	R θ _{JA}	70								°C/W
Operating Temperature Range	T _J	-65 to + 150								°C
Storage Temperature Range	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 4.0 Volts D.C.

3. Mount on Cu-Pad Size 5mm x 5mm on P.C.B.

RATINGS AND CHARACTERISTIC CURVES (EGP10A THRU EGP10M)

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

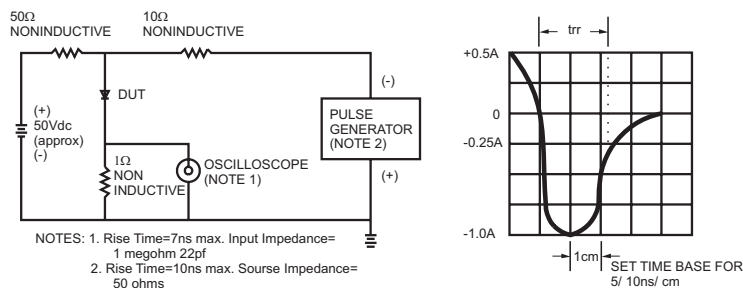


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

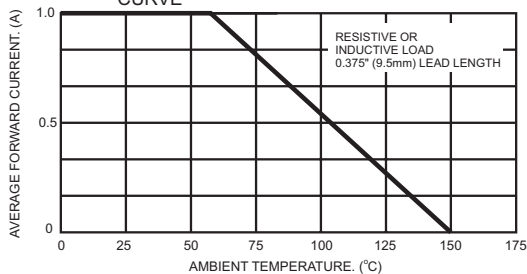


FIG.3- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

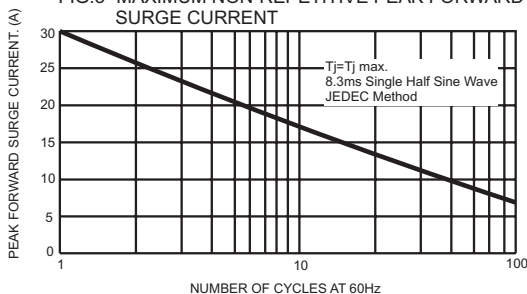


FIG.4- TYPICAL JUNCTION CAPACITANCE

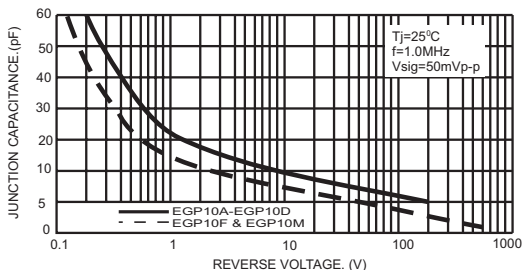


FIG.5- TYPICAL REVERSE CHARACTERISTICS

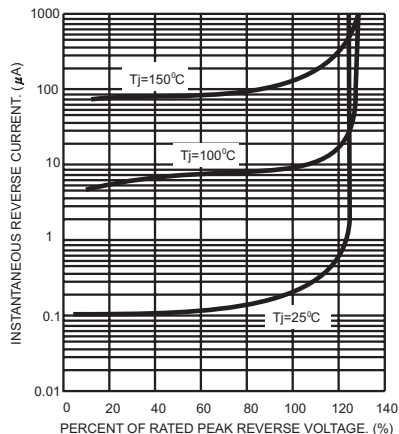


FIG.6- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

