



EGP10A THRU EGP10K

1.0 AMP. Glass Passivated High Efficient Plastic Rectifiers

Voltage Range
50 to 800 Volts
Current
1.0 Ampere

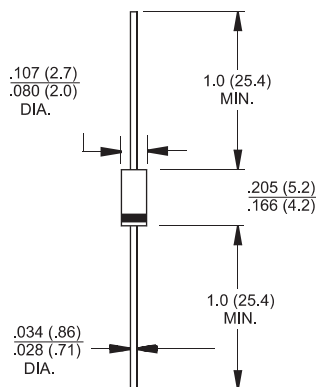
Features

- ✧ 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	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 .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	22			15				pF
Typical Thermal Resistance (Note 3)	R θ JA	50							°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. Thermal Resistance from Junction to Ambient at 0.375" (9.5mm) Lead Length P.C.B. Mounted.

RATINGS AND CHARACTERISTIC CURVES (EGP10A THRU EGP10K)

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

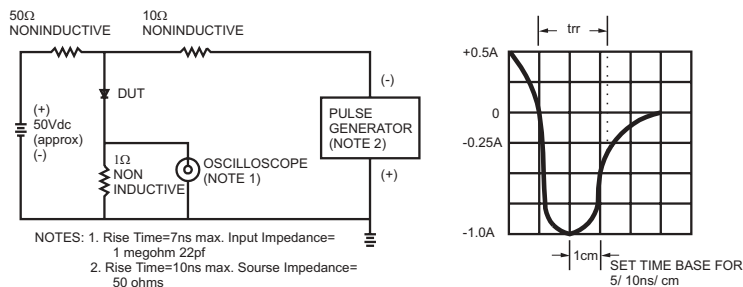


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

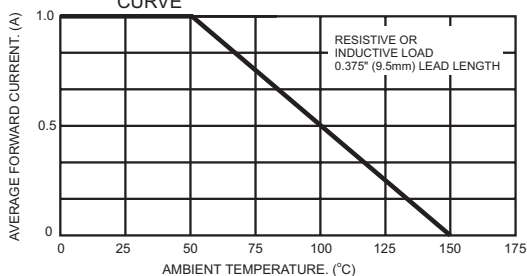


FIG.3- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

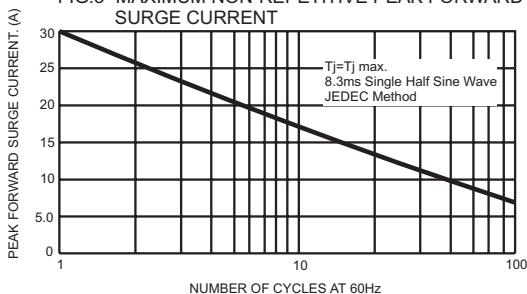


FIG.4- TYPICAL JUNCTION CAPACITANCE

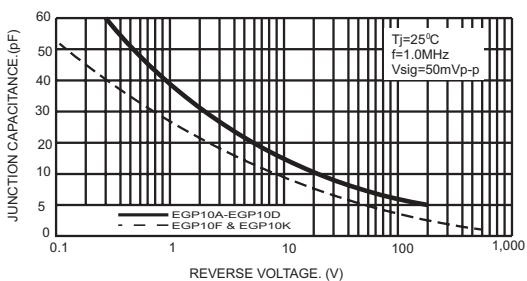


FIG.5- TYPICAL REVERSE CHARACTERISTICS

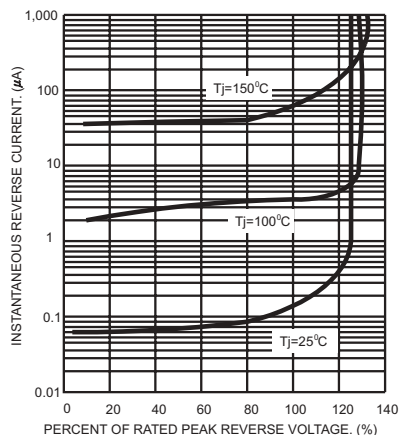


FIG.6- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

