



# EGP20A THRU EGP20K

2.0 AMPS. Glass Passivated High Efficient Plastic Rectifiers



Voltage Range  
50 to 800 Volts  
Current  
2.0 Amperes

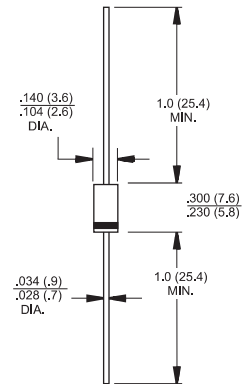
## Features

- ✦ 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 metallurgically bonded construction
- ✦ High temperature soldering guaranteed:  
300°C/10 seconds, .375"(9.5mm) lead length at 5 lbs., (2.3kg) tension

## Mechanical Data

- ✦ Cases: JEDEC DO-15 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: 0.015 ounce, 0.4 gram

## DO-15



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 20A	EGP 20B	EGP 20D	EGP 20F	EGP 20G	EGP 20J	EGP 20K	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 @ $T_A = 55^\circ\text{C}$	$I_{(AV)}$	2.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	75.0							A
Maximum Instantaneous Forward Voltage @ 2.0A	$V_F$	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							$\mu\text{A}$ $\mu\text{A}$
Maximum Reverse Recovery Time ( Note 1 )	$T_{rr}$	50				75			nS
Typical Junction Capacitance ( Note 2 )	$C_j$	40			35				pF
Typical Thermal Resistance (Note 3)	$R_{\theta_{JA}}$ $R_{\theta_{JL}}$	60 20							$^\circ\text{C/W}$
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  $V_R=4.0$  Volts

3. Mount on Cu-Pad Size 10mm x 10mm on P.C.B.

## RATINGS AND CHARACTERISTIC CURVES (EGP20A THRU EGP20K)

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

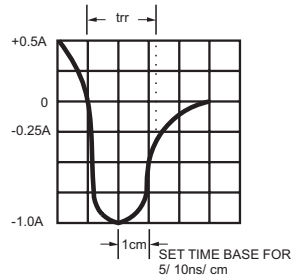
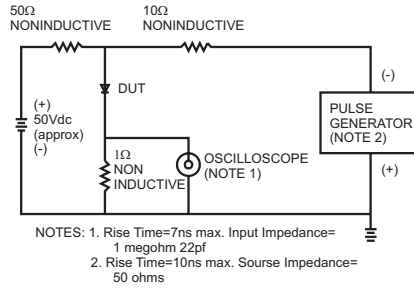


FIG. 2- MAXIMUM FORWARD CURRENT DERATING CURVE

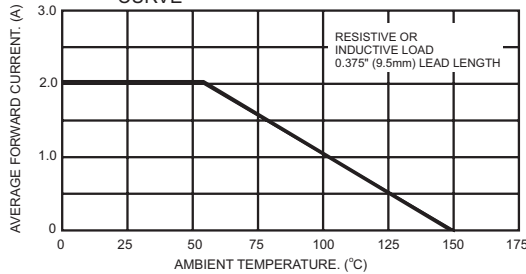


FIG. 5- TYPICAL REVERSE CHARACTERISTICS

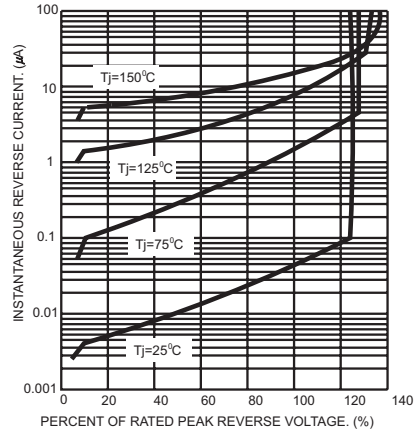


FIG. 3- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

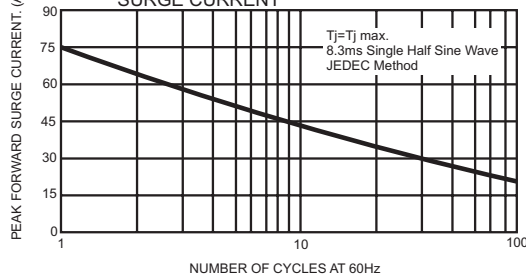


FIG. 6- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

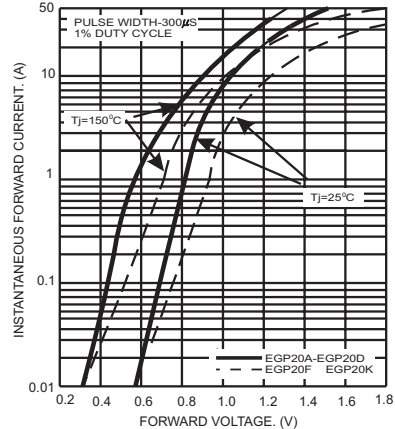


FIG. 4- TYPICAL JUNCTION CAPACITANCE

