



EGP20A THRU EGP20K

2.0 AMPS. Glass Passivated High Efficient Plastic Rectifiers



Voltage Range
50 to 800 Volts
Current
2.0 Amperes

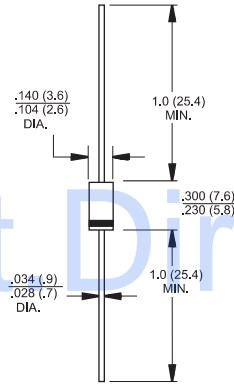
Features

- ✧ 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			μA μA	
Maximum Reverse Recovery Time (Note 1)	T_{rr}	50.0				75.0			nS
Typical Junction Capacitance (Note 2)	C_j	70.0			45.0			pF	
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$ $R_{\theta JL}$	40			15			$^\circ\text{C}/\text{W}$	
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. Thermal Resistance from Junction to Ambient and from Junction to Lead at .375" (9.5mm) Lead Lengths, PC Board Mounted.

RATINGS AND CHARACTERISTIC CURVES (EGP20A THRU EGP20K)

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

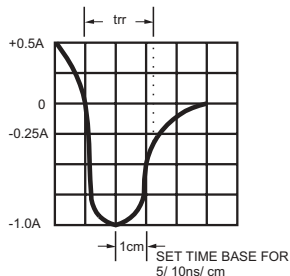
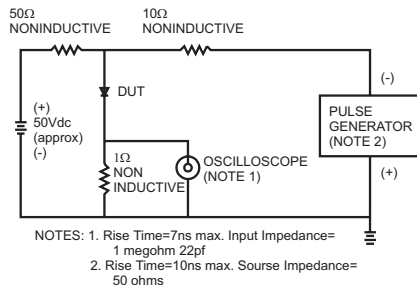


FIG. 2- MAXIMUM FORWARD CURRENT DERATING CURVE

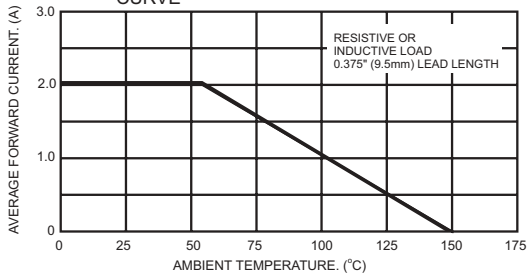


FIG. 3- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

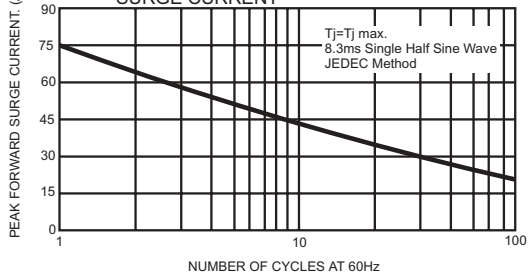


FIG. 4- TYPICAL JUNCTION CAPACITANCE

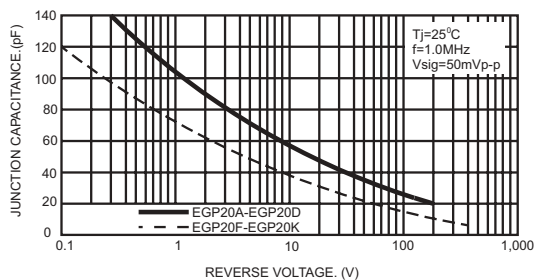


FIG. 5- TYPICAL REVERSE CHARACTERISTICS

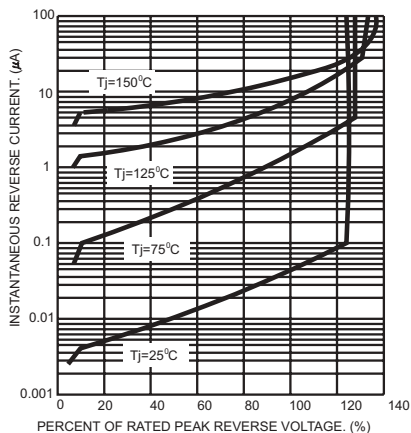


FIG. 6- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

