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# EGP20A THRU EGP20K

## 2.0 Amp Glass Passivated High Efficient Rectifiers 50 to 800 Volts

### Features

- Superfast recovery time for high efficiency
- Glass passivated cavity-free junction, Plastic case
- Low forward voltage, high current capability
- Low leakage current

### Maximum Ratings

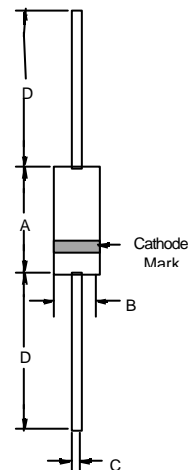
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Typical Thermal Resistance: 40°C/W Junction to Ambient

Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
EGP20A	50V	35V	50V
EGP20B	100V	70V	100V
EGP20D	200V	140V	200V
EGP20F	300V	210V	300V
EGP20G	400V	280V	400V
EGP20J	600V	420V	600V
EGP20K	800V	560V	800V

### Electrical Characteristics @ 25°C Unless Otherwise Specified

Maximum Average Forward Current	$I_{F(AV)}$	2.0 A	$T_A = 55^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	75A	8.3ms, half sine
Maximum Instantaneous Forward Voltage EGP20A-20D EGP20F-20G EGP20J-20K	$V_F$	0.95V 1.25V 1.70V	$I_{FM} = 2.0A;$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	5.0uA 100uA	$T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$
Maximum Reverse Recovery Time EGP20A-20D EGP20F-20K	$T_{rr}$	50nS 75nS	$I_F=0.5A, I_R=1.0A,$ $I_{rr}=0.25A$
Typical Junction Capacitance EGP20A-20D EGP20F-20K	$C_J$	70pF 45pF	Measured at 1.0MHz, $V_R=4.0V$

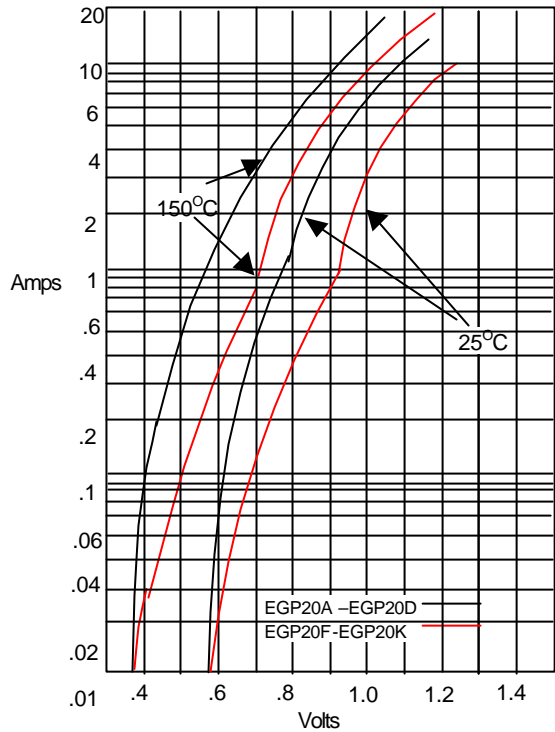
### DO-15



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.230	.300	5.80	7.60	
B	.104	.140	2.60	3.60	
C	.026	.034	.70	.90	
D	1.000	---	25.40	---	

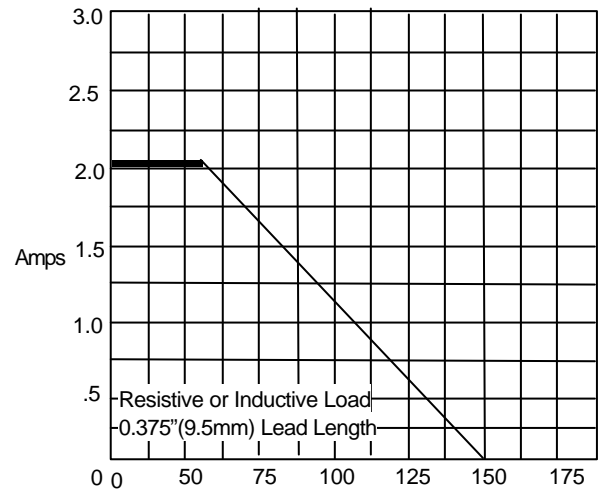
# EGP20A thru EGP20K

Figure 1  
Typical Forward Characteristics



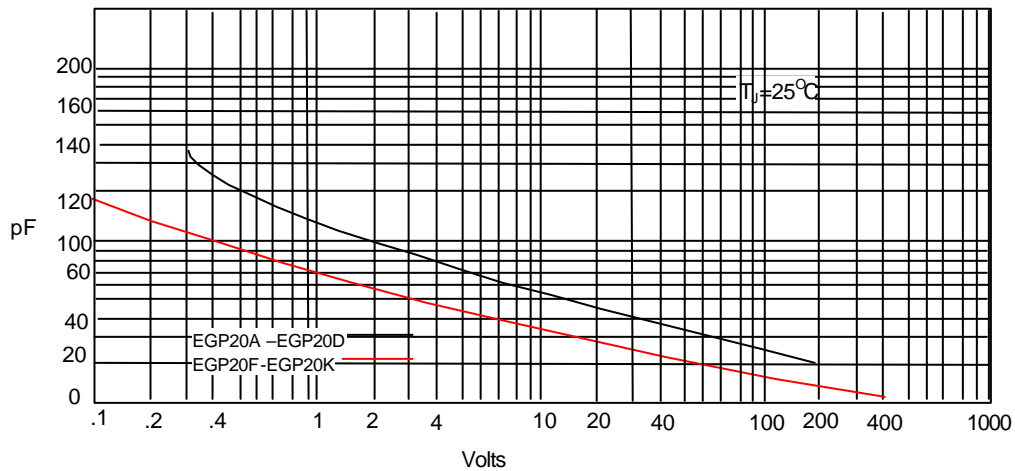
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



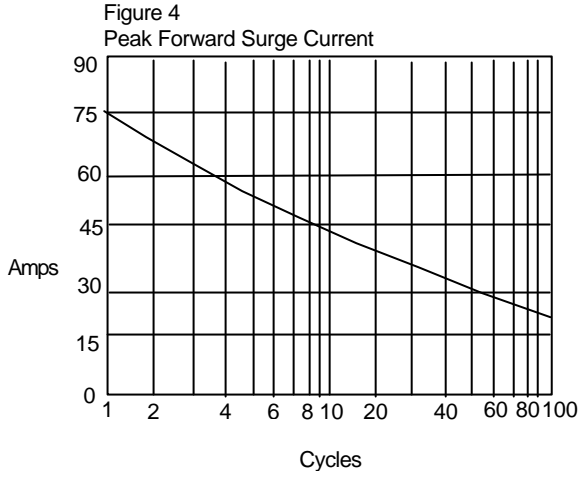
Average Forward Rectified Current - Amperes versus  
Ambient Temperature - °C

Figure 3  
Junction Capacitance



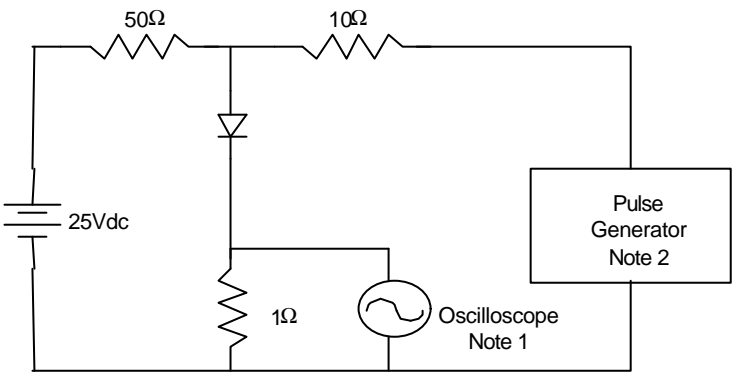
Junction Capacitance - pF versus  
Reverse Voltage - Volts

# EGP20A thru EGP20K



Peak Forward Surge Current - Amperes versus Number Of Cycles At 60Hz - Cycles

Figure 5  
Reverse Recovery Time Characteristic And Test Circuit Diagram



- Notes:
1. Rise Time = 7ns max.  
Input impedance = 1 megohm, 22pF
  2. Rise Time = 10ns max.  
Source impedance = 50 ohms
  3. Resistors are non-inductive

