



Micro Commercial Components  
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## EGP10A THRU EGP10K

### Features

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

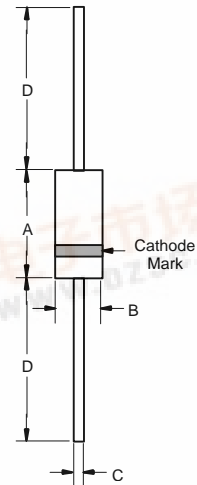
### 1.0 Amp Glass Passivated High Efficient Rectifiers 50 to 800 Volts

### Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Typical Thermal Resistance: 50°C/W Junction to Ambient

| MCC Part Number | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|--|---------------------|-----------------------------|
| EGP10A          | 50V                                    | 35V                 | 50V                         |
| EGP10B          | 100V                                   | 70V                 | 100V                        |
| EGP10D          | 200V                                   | 140V                | 200V                        |
| EGP10F          | 300V                                   | 210V                | 300V                        |
| EGP10G          | 400V                                   | 280V                | 400V                        |
| EGP10J          | 600V                                   | 420V                | 600V                        |
| EGP10K          | 800V                                   | 560V                | 800V                        |

### DO-41



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

|   |             |                         |  |
|---|-------------|-------------------------|--|
| Average Forward Current                                 | $I_{F(AV)}$ | 1.0 A                   | $T_A = 55^\circ\text{C}$   |
| Peak Forward Surge Current                              | $I_{FSM}$   | 30A                     | 8.3ms, half sine   |
| Maximum Instantaneous Forward Voltage                   | $V_F$       | 0.95V<br>1.25V<br>1.70V | $I_F=1.0A$<br>$T_A=25^\circ\text{C}$                                     |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_R$       | 5.0uA<br>100uA          | $T_A = 25^\circ\text{C}$<br>$T_A = 125^\circ\text{C}$                    |
| Maximum Reverse Recovery Time                           | $t_{rr}$    | 50nS<br>75nS            | $I_F=0.5A$ ,<br>$I_R=1.0A$ ,<br>$I_{RR}=0.25A$<br>$T_J=25^\circ\text{C}$ |
| Typical Junction Capacitance                            | $C_J$       | 22pF<br>15pF            | Measured at<br>1.0MHz,<br>$V_R=4.0V$                                     |

### DIMENSIONS

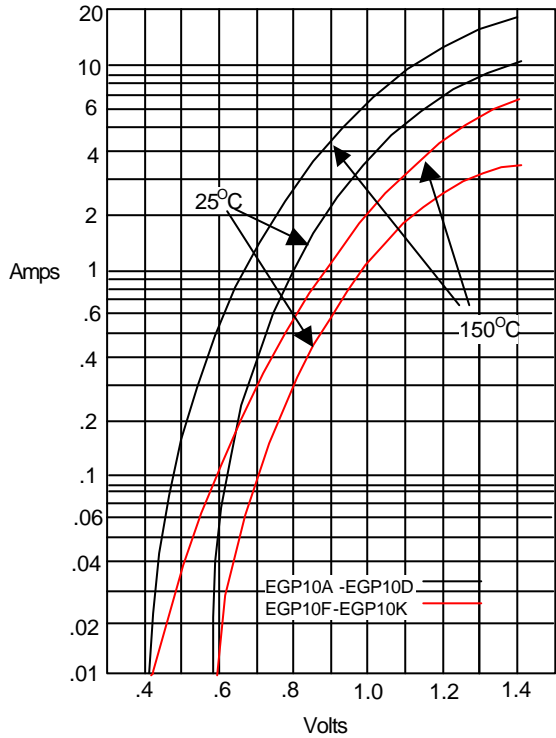
| DIM | INCHES |      | MM    |      | NOTE |
|-----|--------|------|-------|------|------|
|     | MIN    | MAX  | MIN   | MAX  |      |
| A   | .166   | .205 | 4.10  | 5.20 |      |
| B   | .080   | .107 | 2.00  | 2.70 |      |
| C   | .028   | .034 | .70   | .90  |      |
| D   | 1.000  | ---  | 25.40 | ---  |      |



# EGP10A thru EGP10K

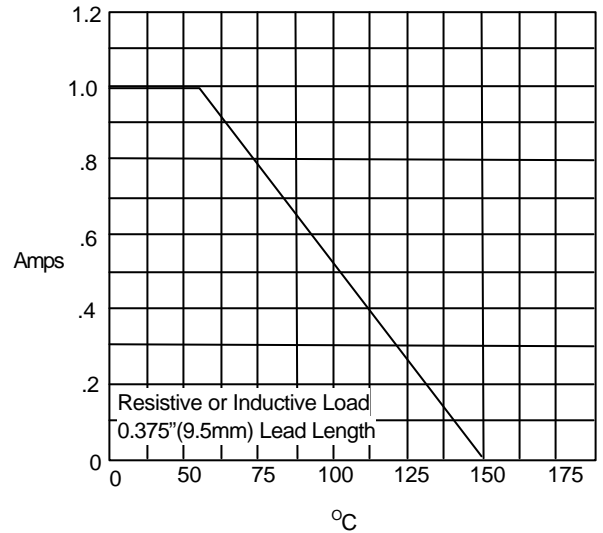


Figure 1  
Typical Forward Characteristics



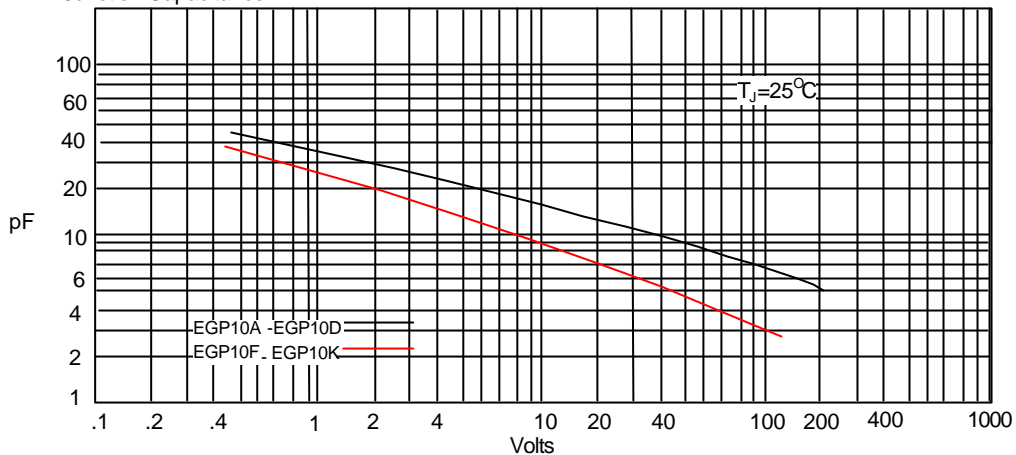
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



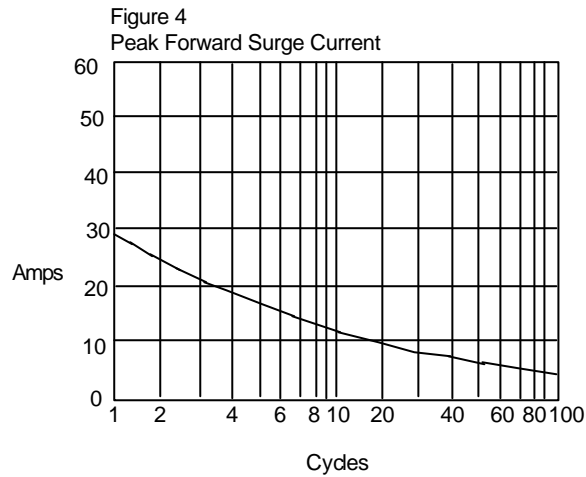
Average Forward Rectified Current - Amperes versus  
Ambient Temperature - °C

Figure 3  
Junction Capacitance



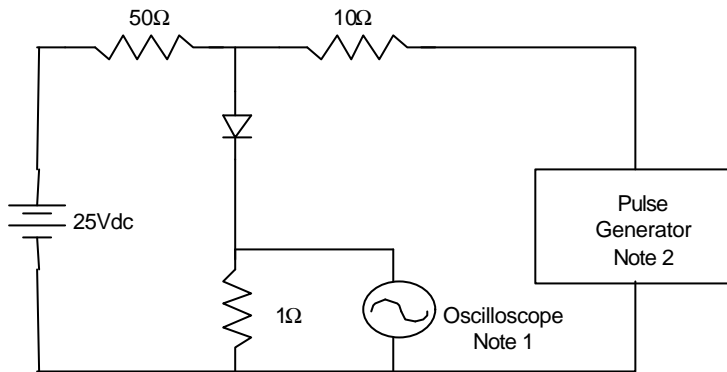
Junction Capacitance - pF versus  
Reverse Voltage - Volts

# EGP10A thru EGP10K



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

