



Micro Commercial Components  
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# RGP15A THRU RGP15M

**1.5 Amp Glass  
 Passivated Junction  
 Fast Recovery  
 Rectifiers  
 50 to 1000 Volts**

## Features

- High temperature metallurgically bonded construction
- Glass passivated cavity-free junction
- 1.5 amperes operation at  $T_A = 55^\circ\text{C}$  and with no thermal runaway.
- Typical  $I_R$  less than 0.1uA

## Maximum Ratings

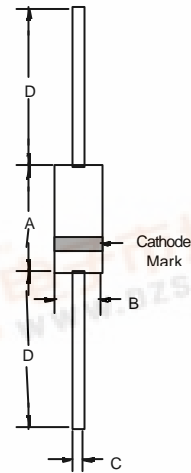
- Operating Temperature:  $-55^\circ\text{C}$  to  $+150^\circ\text{C}$
- Storage Temperature:  $-55^\circ\text{C}$  to  $+150^\circ\text{C}$
- Typical Thermal Resistance:  $45^\circ\text{C/W}$  Junction to Ambient

| MCC Part Number | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|--|---------------------|-----------------------------|
| RGP15A          | 50V                                    | 35V                 | 50V                         |
| RGP15B          | 100V                                   | 70V                 | 100V                        |
| RGP15D          | 200V                                   | 140V                | 200V                        |
| RGP15G          | 400V                                   | 280V                | 400V                        |
| RGP15J          | 600V                                   | 420V                | 600V                        |
| RGP15K          | 800V                                   | 560V                | 800V                        |
| RGP15M          | 1000V                                  | 700V                | 1000V                       |

## Electrical Characteristics @ $25^\circ\text{C}$ Unless Otherwise Specified

|   |             |                         |   |
|---|-------------|-------------------------|---|
| Maximum Average Forward Current                                     | $I_{F(AV)}$ | 1.5 A                   | $T_A = 55^\circ\text{C}$                              |
| Peak Forward Surge Current  | $I_{FSM}$   | 50A                     | 8.3ms, half sine                                      |
| Maximum Instantaneous Forward Voltage                               | $V_F$       | 1.3V                    | $I_{FM} = 1.5A$ ;<br>$T_A = 25^\circ\text{C}$         |
| Maximum DC Reverse Current At Rated DC Blocking Voltage             | $I_R$       | 5.0uA<br>200uA          | $T_A = 25^\circ\text{C}$<br>$T_A = 150^\circ\text{C}$ |
| Maximum Reverse Recovery Time<br>RGP15A-15G<br>RGP15J<br>RGP15K-15M | $T_{rr}$    | 150nS<br>250nS<br>500nS | $I_F = 0.5A, I_R = 1.0A,$<br>$I_{rr} = 0.25A$         |
| Typical Junction Capacitance  | $C_J$       | 25pF                    | Measured at<br>1.0MHz,<br>$V_R = 4.0V$                |

## DO-15

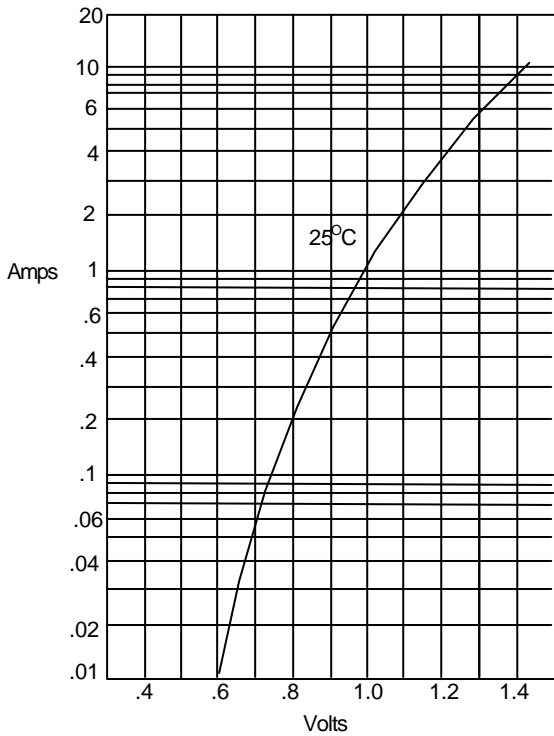


## DIMENSIONS

| 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 | ---  |      |

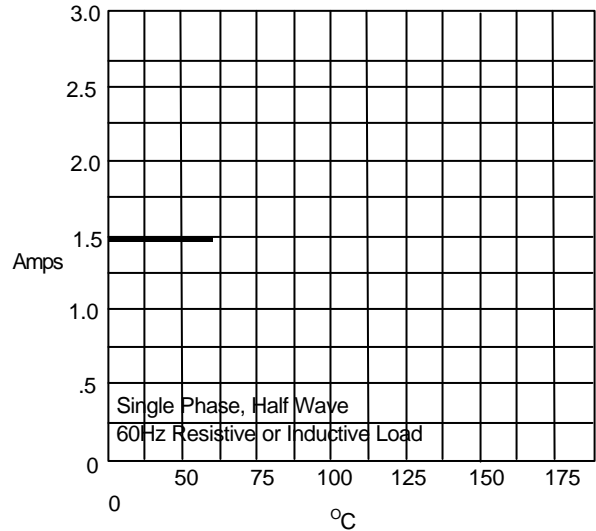
# RGP15A thru RGP15M

Figure 1  
Typical Forward Characteristics



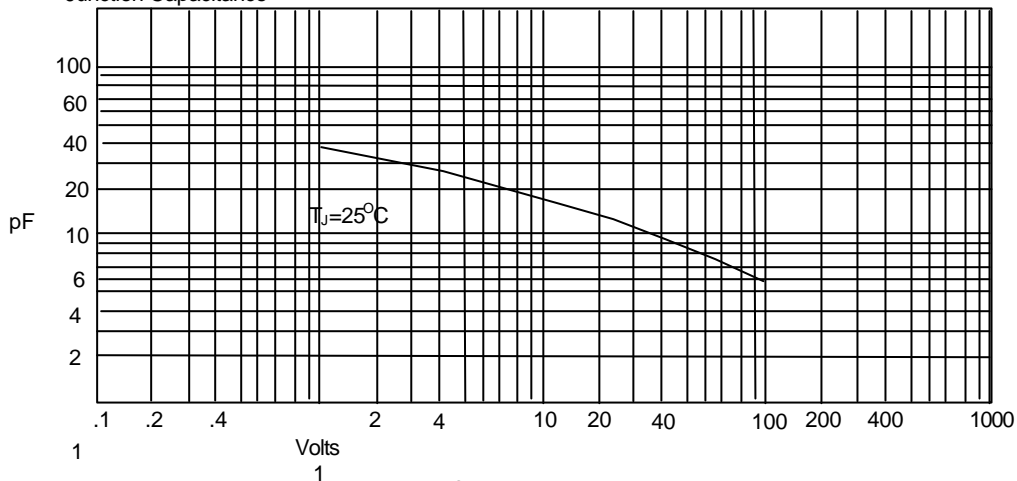
Instantaneous Forward Current - Amperes *versus*  
Instantaneous Forward Voltage - Volts

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

# RGP15A thru RGP15M

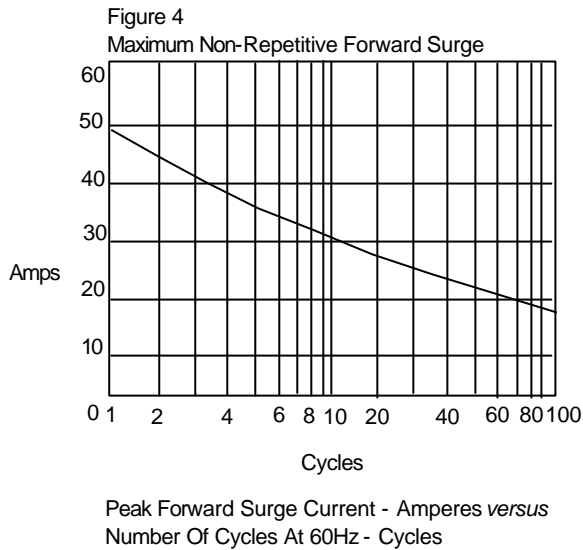


Figure 5  
Reverse Recovery Time Characteristic And Test Circuit Diagram

