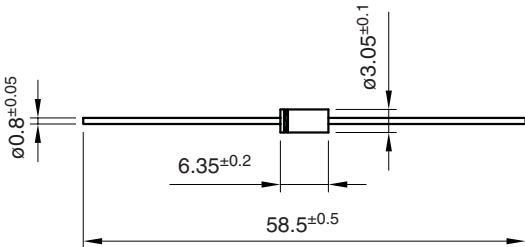


## 1.5 Amp. Glass Passivated Fast Recovery Rectifier

|                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Dimensions in mm.</b></p> <p><b>DO-15 (Plastic)</b></p>  <p><b>Mounting instructions</b></p> <ol style="list-style-type: none"> <li>1. Min. distance from body to soldering point, 4 mm.</li> <li>2. Max. solder temperature, 350 °C.</li> <li>3. Max. soldering time, 3.5 sec.</li> <li>4. Do not bend lead at a point closer than 2 mm. to the body.</li> </ol> | <p><b>Voltage</b><br/>50 to 1000 V</p> <p><b>Current</b><br/>1.5 A at 55 °C</p> <p><b>HYPERECTIFIER®</b></p> <ul style="list-style-type: none"> <li>• Glass passivated junction</li> <li>• High current capability</li> <li>• The plastic material carries U/L recognition 94 V-0</li> <li>• Terminals: Axial Leads</li> <li>• Polarity: Color band denotes cathode</li> </ul> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Maximum Ratings, according to IEC publication No. 134

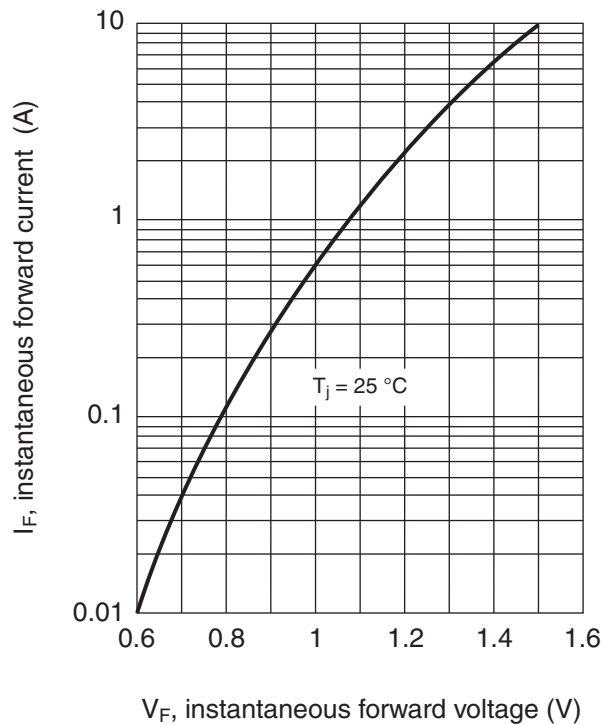
|             |                                                                                                            | RGP 15A        | RGP 15B | RGP 15D | RGP 15G | RGP 15J | RGP 15K | RGP 15KT | RGP 15M | RGP 15MT |
|-------------|------------------------------------------------------------------------------------------------------------|----------------|---------|---------|---------|---------|---------|----------|---------|----------|
| $V_{RRM}$   | Peak Recurrent Reverse Voltage (V)                                                                         | 50             | 100     | 200     | 400     | 600     | 800     | 800      | 1000    | 1000     |
| $I_{F(AV)}$ | Forward Current at $T_{amb} = 55\text{ °C}$                                                                | 1.5 A          |         |         |         |         |         |          |         |          |
| $I_{FRM}$   | Recurrent Peak Forward Current                                                                             | 10 A           |         |         |         |         |         |          |         |          |
| $I_{FSM}$   | 8.3 ms. Peak Forward Surge Current<br>(Jedec Method)                                                       | 50 A           |         |         |         |         |         |          |         |          |
| $t_{rr}$    | Maximum reverse recovery time from<br>$I_F = 0.5\text{ A}$ ; $I_R = 1\text{ A}$ ; $I_{RR} = 0.25\text{ A}$ | 150 ns         |         |         | 250 ns  | 500 ns  | 300 ns  | 500 ns   | 300 ns  |          |
| $T_j$       | Operating Temperature Range                                                                                | -65 to +175 °C |         |         |         |         |         |          |         |          |
| $T_{stg}$   | Storage Temperature Range                                                                                  | -65 to +175 °C |         |         |         |         |         |          |         |          |
| $E_{RSM}$   | Maximum non Repetitive Peak Reverse Avalanche energy.<br>$I_R = 1\text{ A}$ ; $T_j = 25\text{ °C}$         | 20 mJ          |         |         |         |         |         |          |         |          |

## Electrical Characteristics at $T_{amb} = 25\text{ °C}$

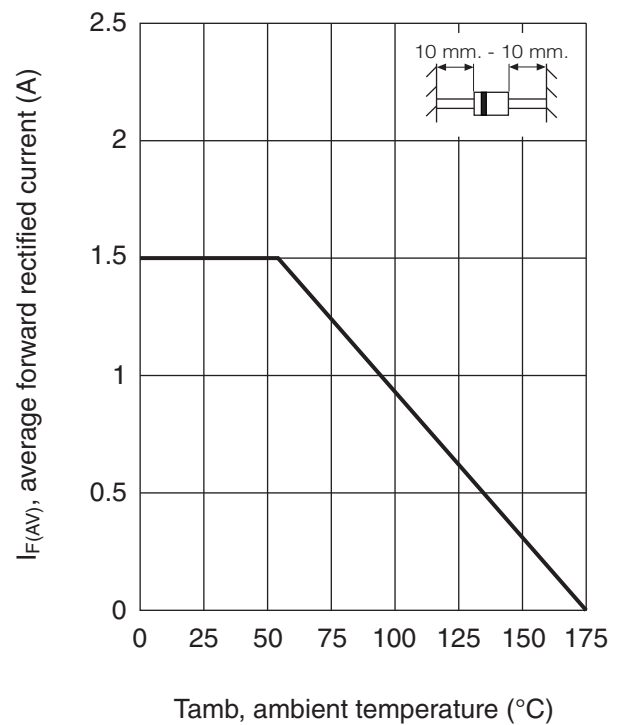
|               |                                                               |                                      |
|---------------|---------------------------------------------------------------|--------------------------------------|
| $V_F$         | Maximum Forward Voltage Drop at $I_F = 1.5\text{ A}$          | 1.3 V                                |
| $I_R$         | Maximun Reverse Current at $V_{RRM}$<br>at 25 °C<br>at 150 °C | 5 $\mu\text{A}$<br>200 $\mu\text{A}$ |
| $R_{th(j-a)}$ | Thermal Resistance ( $l = 10\text{mm.}$ )<br>Max.<br>Typ.     | 50 °C/W<br>30 °C/W                   |

## Rating And Characteristic Curves

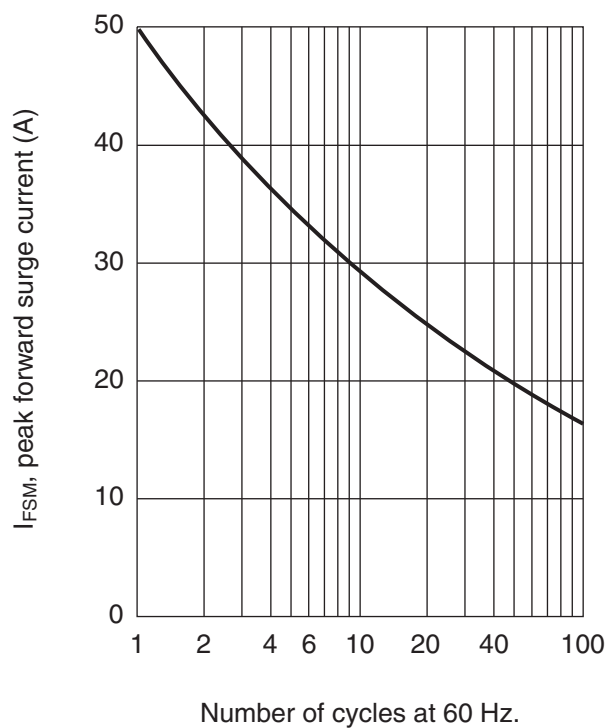
TYPICAL FORWARD CHARACTERISTIC



FORWARD CURRENT DERATING CURVE



MAXIMUM NON REPETITIVE  
PEAK FORWARD SURGE CURRENT



TYPICAL JUNCTION CAPACITANCE

