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### **Product: Fast Recovery Rectifiers**

Fast Recovery Rectifiers are devices used in applications where commutation times around 150 ÷ 500ns are required. Switching Power Supplies, Electronic Ballast, Small Household Appliances are some of the typical end uses.

Manufactured using HYPERRECTIFIER® Glass Passivated technology, we offer these devices housed either in leaded packages or SMD.

Product	Family	$I_{F(AV)}$ (A)	$I_{FSM}$ (A)	$V_{RRM}$ (V)	$V_F$ (V)	$T_{RR}$ (ns)	OUTLINE
<a href="#">RGP50G</a>	RGP50	5.0	300	400	1.3	150	P-6

## 5 Amp. Glass Passivated Fast Recovery Rectifier

<p>Dimensions in mm.</p> <p style="text-align: center;">P-6 (Plastic)</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 4 mm. to the body.</li> </ol>	<p>Voltage 50 to 1000 V.</p> <p>Current 5.0 A. at 55 °C.</p>
	<ul style="list-style-type: none"> <li>• Glass passivated junction</li> <li>• High surge 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 50A	RGP 50B	RGP 50D	RGP 50G	RGP 50J	RGP 50K	RGP 50M
$V_{RRM}$	Peak recurrent reverse voltage (V)	50	100	200	400	600	800	1000
$I_{F(AV)}$	Forward current at $T_{amb} = 55\text{ °C}$	5 A						
$I_{FRM}$	Recurrent peak forward current	60 A						
$I_{FSM}$	8.3 ms. peak forward surge current (Jedec Method)	300 A						
$t_{rr}$	Max. reverse recovery time from $I_F = 0.5\text{ A}$ $I_R = 1\text{ A}$ $I_{RR} = 0.25\text{ A}$	150 ns				250 ns	500 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. $I_R = 1\text{ A}$ ; $T_j = 25\text{ °C}$	20 mJ						

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

$V_F$	Max. forward voltage drop at $I_F = 5\text{ A}$	1.3 V
$I_R$	Max. reverse current at $V_{RRM}$ at 25 °C	5 $\mu\text{ A}$
$R_{thj-a}$	Max. thermal resistance ( $l = 10\text{ mm.}$ )	10 °C/W