




**5.0 Amp. Glass Passivated Ultrafast Recovery Rectifier**

 <p><b>DO-201AD (DO-27)</b></p>	<b>Voltage</b> 50V to 1000V	<b>Current</b> 5 A at 55 °C	
	<b>HYPERECTIFIER®</b>		
	<b>FEATURES</b> <ul style="list-style-type: none"> <li>Ultrafast recovery time for high efficiency</li> <li>Low power losses</li> <li>Low forward voltage drop</li> <li>High forward surge current capability</li> <li>Solder dip 260°C, 10s</li> <li>AEC-Q101 qualified</li> <li>Component in accordance to RoHS 2011/65/EU and WEEE 2002/96/EC</li> <li>Meets MSL level 1, per J-STD-020, LF maximum peak of 260° C</li> </ul>		  <b>RoHS COMPLIANT</b>
	<b>MECHANICAL DATA</b> <ul style="list-style-type: none"> <li><b>Case:</b> DO-201AD (DO-27). Epoxy meets UL 94V-0 flammability rating.</li> <li><b>Polarity:</b> Color band denotes cathode end.</li> <li><b>Terminals:</b> Matte tin plated leads, solderable per MIL-STD-750 Method 2026, J-STD-002 and JESD22-B102. Consumer grade, meets JESD 201 class 1A whisker test.</li> </ul>		
<b>TYPICAL APPLICATIONS</b> Used in high frequency rectifier of switching mode power supplies, inverters, freewheeling diodes, dc-to-dc converters, and other power switching application.			

**Maximun Ratings and Electrical Characteristics at 25 °C**

Marking Code		EGP 50A	EGP 50B	EGP 50D	EGP 50F	EGP 50G	EGP 50J	EGP 50K	EGP 50M	
V <sub>RRM</sub>	Peak recurrent reverse voltage (V)	50	100	200	300	400	600	800	1000	
V <sub>RMS</sub>	Maximum RMS voltage (V)	35	70	140	210	280	420	560	700	
V <sub>DC</sub>	Maximum DC blocking voltage (V)	50	100	200	300	400	600	800	1000	
I <sub>F(AV)</sub>	Forward current at Tamb = 55 °C	5 A								
I <sub>FRM</sub>	Recurrent peak forward current	50 A								
I <sub>FSM</sub>	8.3 ms. peak forward surge current (Jedec Method)	150 A								
t <sub>rr</sub>	Max. reverse recovery time from I <sub>F</sub> = 0.5 A ; I <sub>R</sub> = 1 A ; I <sub>RR</sub> = 0.25 A	50 ns					75 ns			
C <sub>j</sub>	Typical Junction Capacitance at 1 MHz and reverse voltage of 4V <sub>DC</sub>	100 pF					65 pF			
T <sub>j</sub>	Operating temperature range	- 65 to + 150 °C								
T <sub>stg</sub>	Storage temperature range	- 65 to + 150 °C								
E <sub>RSM</sub>	Maximum non repetitive peak reverse avalanche energy. I <sub>R</sub> = 1 A ; T <sub>j</sub> = 25 °C	20 mJ								

**Electrical Characteristics at Tamb = 25 °C**

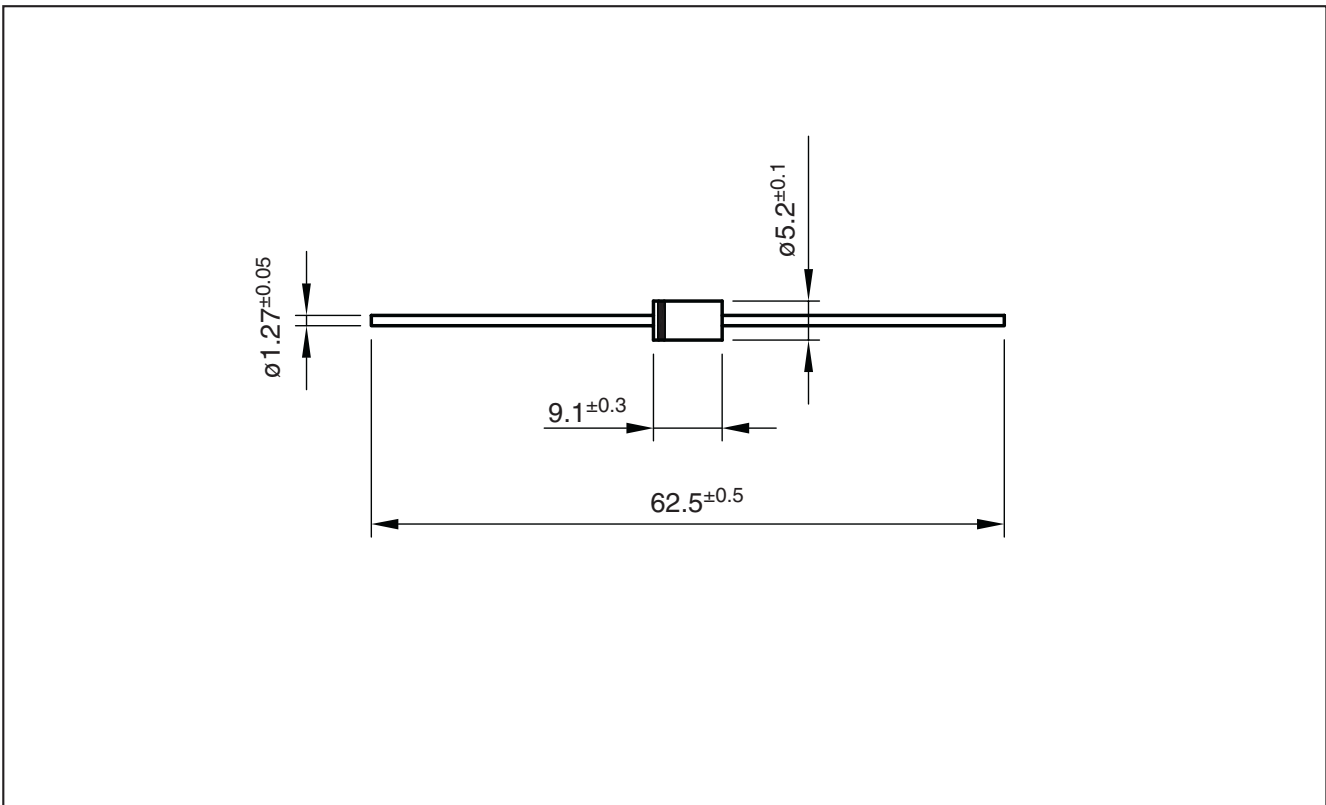
V <sub>F</sub>	Max. forward voltage drop at I <sub>F</sub> = 5 A	1.0 V	1.25 V	1.3 V	1.7 V
I <sub>R</sub>	Max. reverse current at V <sub>RRM</sub>	5 µA			
	at 25 °C	50 µA			
	at 150 °C				
R <sub>thj-a</sub>	Max. thermal resistance (l = 10 mm.)	20 °C/W			

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**Ordering information**

PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
EGP50G AMP	AMP	AMMO BOX	1,500	1.100
EGP50G TR	TR	13" diameter tape and reel	1,500	1.100

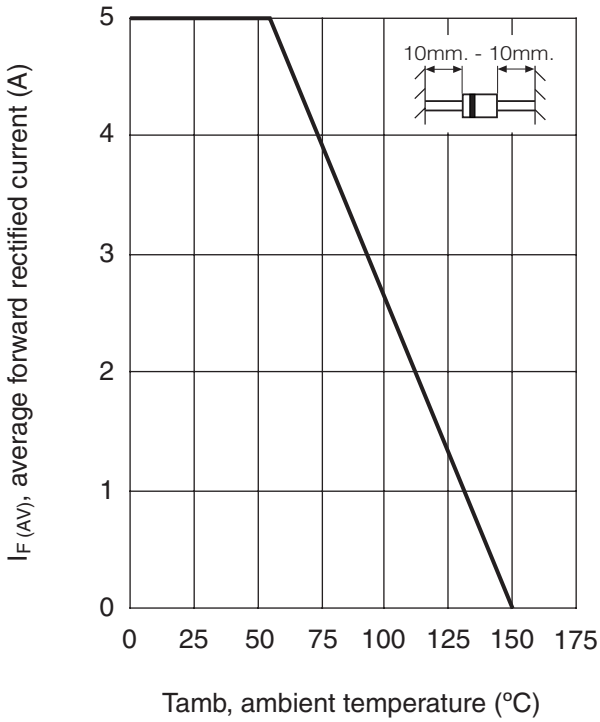
**Package Outline Dimensions: (mm) DO-201AD (DO-27)**



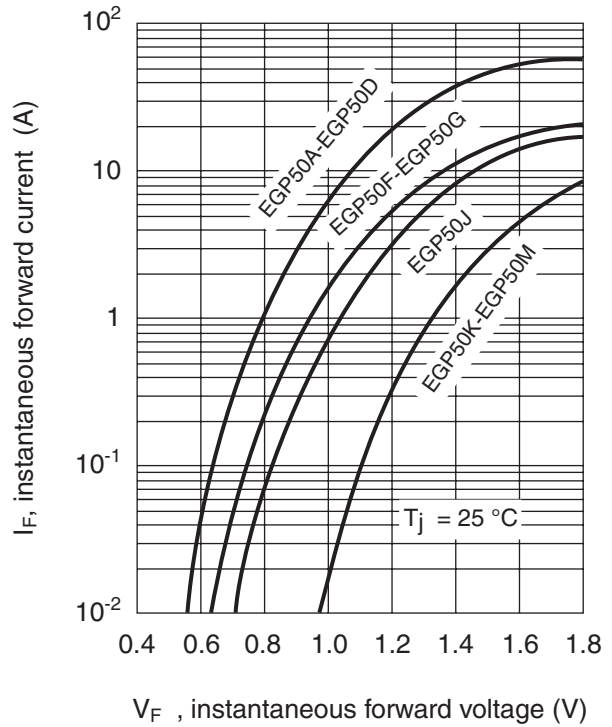
**5.0 Amp. Glass Passivated Ultrafast Recovery Rectifier**

**Ratings and Characteristics (Ta 25 °C unless otherwise noted)**

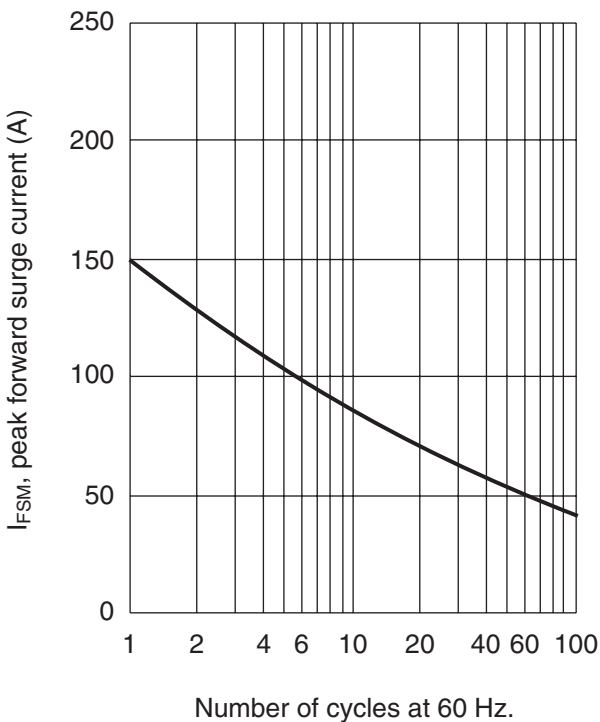
**FORWARD CURRENT DERATING CURVE**



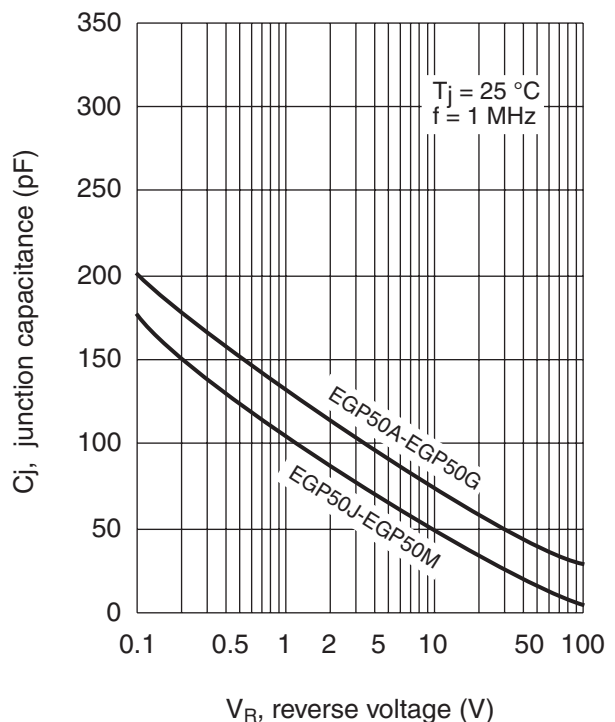
**TYPICAL FORWARD CHARACTERISTIC**



**MAXIMUM NON REPETITIVE PEAK FORWARD SURGE CURRENT**



**TYPICAL JUNCTION CAPACITANCE**



**5.0 Amp. Glass Passivated Ultrafast Recovery Rectifier****Revision History**

<b>Date</b>	<b>Revision</b>	<b>Description of Changes</b>
Jun-2009	0	Original Data Sheet
Jun-2016	1	Format update

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