

5.0 Amp. Glass Passivated Ultrafast Recovery Rectifier

DO-201AD (DO-27)



Voltage 50V to 1000V Current

5 A at 55 °C

HYPERECTIFIER

FEATURES

- Ultrafast recovery time for high efficiency
- Low power losses
- Low forward voltage drop
- High forward surge current capability
- Solder dip 260°C, 10s
- AEC-Q101 qualified
- Component in accordance to RoHS 2011/65/EU and WEEE 2002/96/EC
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260° C

MECHANICAL DATA

- Case: DO-201AD (DO-27). Epoxy meets UL 94V-0 flammability rating.
- Polarity: Color band denotes cathode end.
- **Terminals:** 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.

TYPICAL APPLICATIONS

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_{RRM}	Peak recurrent reverse voltage (V)	50	100	200	300	400	600	800	1000
V _{RMS}	Maximum RMS voltage (V)	35	70	140	210	280	420	560	700
V_{DC}	Maximum DC blocking voltage (V) 50 100		200	300	400	600	800	1000	
I _{F(AV)}	Forward current at Tamb = 55 °C		5 A			•			
I _{FRM}	Recurrent peak forward current		50 A						
I _{FSM}	8.3 ms. peak forward surge current (Jedec Method)		150 A						
t_{rr}	Max. reverse recovery time from $I_F = 0.5 A$; $I_R = 1 A$; $I_{RR} = 0.25 A$		50 ns 75 ns						
Cj	Typical Junction Capacitance at 1 MHz and reverse voltage of 4V _{DC}	100 pF 65 pF							
Tj	Operating temperature range		− 65 to + 150 °C						
T _{stg}	Storage temperature range	− 65 to + 150 °C							
E _{RSM}	Maximum non repetitive peak reverse avalanche energy. I _R = 1A; T _j = 25 °C	e avalanche energy.							

Electrical Characteristics at Tamb = 25 °C

V _F	Max. forward voltage drop at $I_F = 5 A$	1.0 V	1.25 V	1.3 V	1.7 V			
l _o	Max. reverse current at V _{RRM}	at 25 °C	5 μΑ					
IR		at 150 °C	50 μA					
R _{thj-a}	Max. thermal resistance (I = 10 mm.)	20 °C/W						

Revision: 1

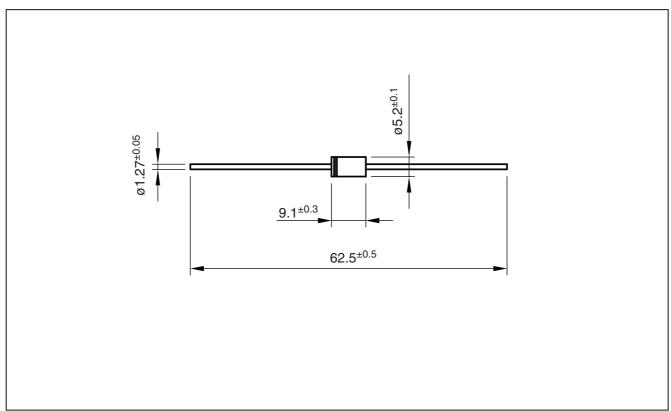


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Ordering information

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)





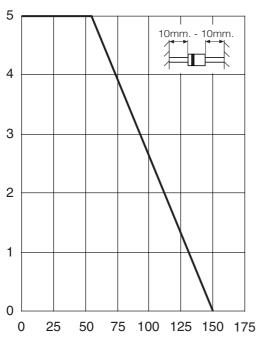
IF (AV), average forward rectified current (A)

IFSM, peak forward surge current (A)

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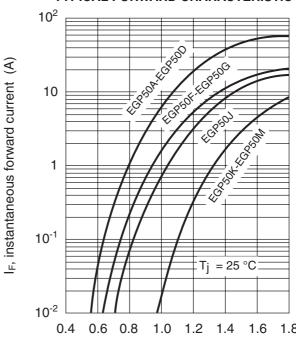
Ratings and Characteristics (Ta 25 °C unless otherwise noted)

FORWARD CURRENT DERATING CURVE



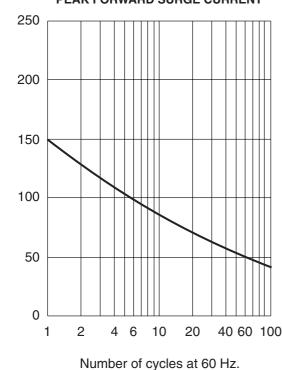
Tamb, ambient temperature (°C)

TYPICAL FORWARD CHARACTERISTIC

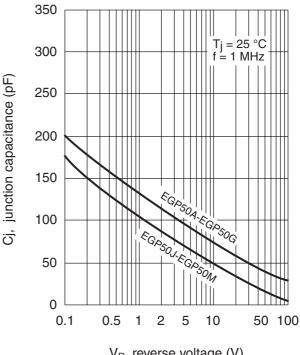


V_F, instantaneous forward voltage (V)

MAXIMUM NON REPETITIVE PEAK FORWARD SURGE CURRENT



TYPICAL JUNCTION CAPACITANCE





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Revision History

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

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