

2.0 Amp. Glass Passivated Ultrafast Recovery Rectifier

DO-204AC (DO-15)



Voltage 50V to 600V 2 A at 55 °C

Current

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-204AC (DO-15). 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 20A	EGP 20B	EGP 20D	EGP 20F	EGP 20G	EGP 20J
V _{RRM}	Peak recurrent reverse voltage (V)	50	100	200	300	400	600
V _{RMS}	Maximum RMS voltage (V)	35	70	140	210	280	420
V _{DC}	Maximum DC blocking voltage (V) 50 100 200 300 400 6		600				
I _{F(AV)}	Forward current at Tamb = 55 °C	2 A					
I _{FRM}	Recurrent peak forward current	20 A					
I _{FSM}	8.3 ms. peak forward surge current (Jedec Method)	75 A					
t _{rr}	Max. reverse recovery time from $I_F = 0.5 \text{ A}$; $I_R = 1 \text{ A}$; $I_{RR} = 0.25 \text{ A}$	50 ns					
C _j	Typical Junction Capacitance at 1 MHz and reverse voltage of 4V _{DC}	45 pF 30 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. $I_R = 1A \; ; \; T_j = 25 \; ^{\circ}C$	20 mJ					

Electrical Characteristics at Tamb = 25 °C

V _F	Maximum forward voltage drop at $I_F = 2 A$		0.95 V	1.25 V	
I _R	Max. reverse current at V _{RRM}	at 25 °C	5 μΑ		
		at 150 °C	50 μA		
R _{thj-a}	Max. thermal resistance (I = 10 mm.)		30 °C/W		

Revision: 1

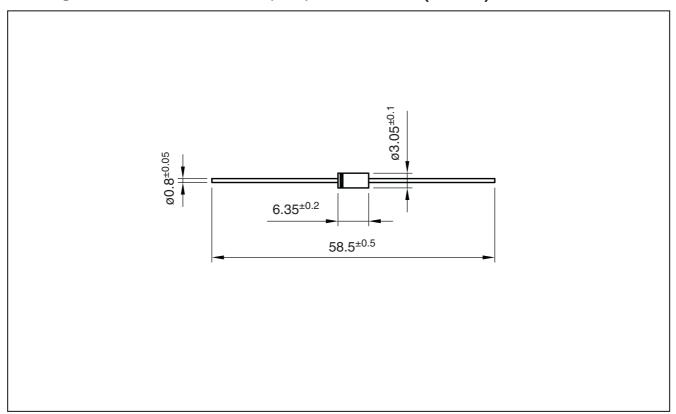


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Ordering information

PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
EGP20D AMP	AMP	AMMO BOX	4,000	0.378
EGP20D TR	TR	14" diameter tape and reel	4,000	0.378

Package Outline Dimensions: (mm) DO-204AC (DO-15)



Revision: 1



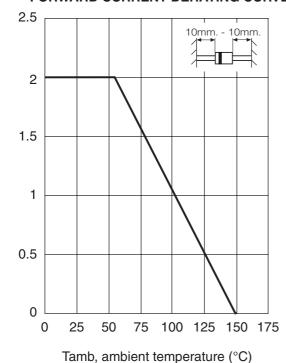
IF(AV), average forward rectified current (A)

IFSM, peak forward surge current (A)

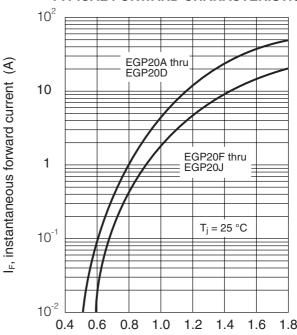
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Ratings and Characteristics (Ta 25 °C unless otherwise noted)

FORWARD CURRENT DERATING CURVE

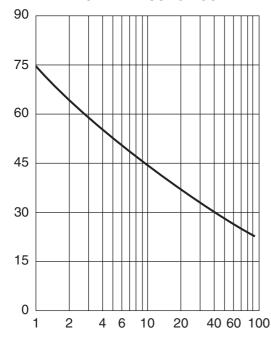


TYPICAL FORWARD CHARACTERISTIC



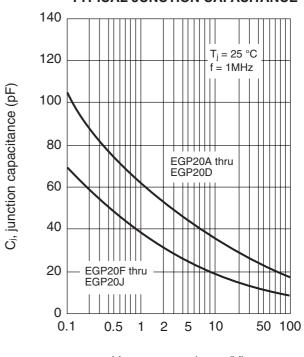
V_F, instantaneous forward voltage (V)

MAXIMUM NON REPETITIVE PEAK FORWARD SURGE CURRENT



Number of cycles at 60 Hz.

TYPICAL JUNCTION CAPACITANCE



V_R, reverse voltage (V)



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Revision History

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

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