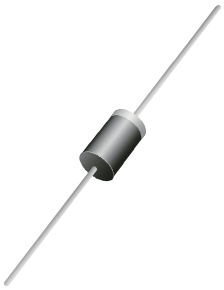
2.0 Amp. Glass Passivated Ultrafast Recovery Rectifier

DO-204AC (DO-15)



Voltage
50V to 1000V

Current
2 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 260ºC, 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 260º C

Pb e3 RoHS COMPLIANT

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		FUF 2001	FUF 2002	FUF 2003	FUF 2004	FUF 2005	FUF 2006	FUF 2007
V_{RRM}	Peak recurrent reverse voltage (V)	50	100	200	400	600	800	1000
V_{RMS}	Maximum RMS voltage (V)	35	70	140	280	420	560	700
V_{DC}	Maximum DC blocking voltage (V)	50	100	200	400	600	800	1000
$I_{F(AV)}$	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 A ; I_R = 1 A ; I_{RR} = 0.25 A	50 ns				75 ns		
C_j	Typical Junction Capacitance at 1 MHz and reverse voltage of $4V_{DC}$	45 pF						
T_j	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	20 mJ						

Electrical Characteristics at Tamb = 25 °C

V_F	Maximum forward voltage drop at I_F = 2 A	1.3 V	1.7 V
I_R	Max. reverse current at V_{RRM} at 25 °C	5 µA	
R_{thj-a}	Max. thermal resistance (l = 10 mm.)	30 °C/W	

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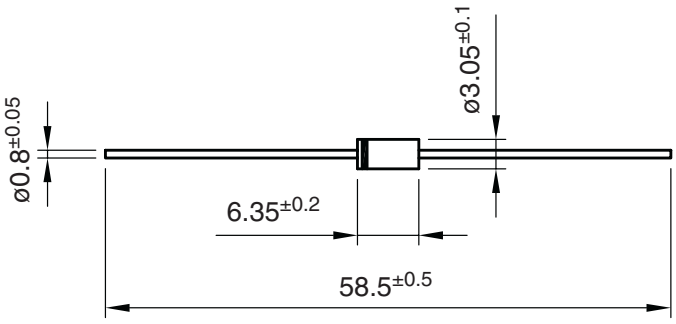
Ordering information

PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
FUF2005 AMP	AMP	AMMO BOX	4,000	0.378
FUF2005 TR	TR	14" diameter tape and reel	4,000	0.378

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



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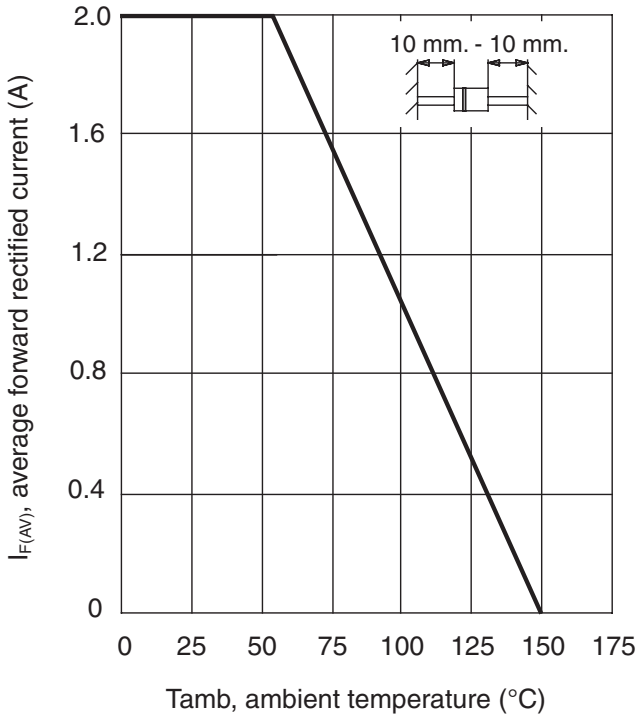
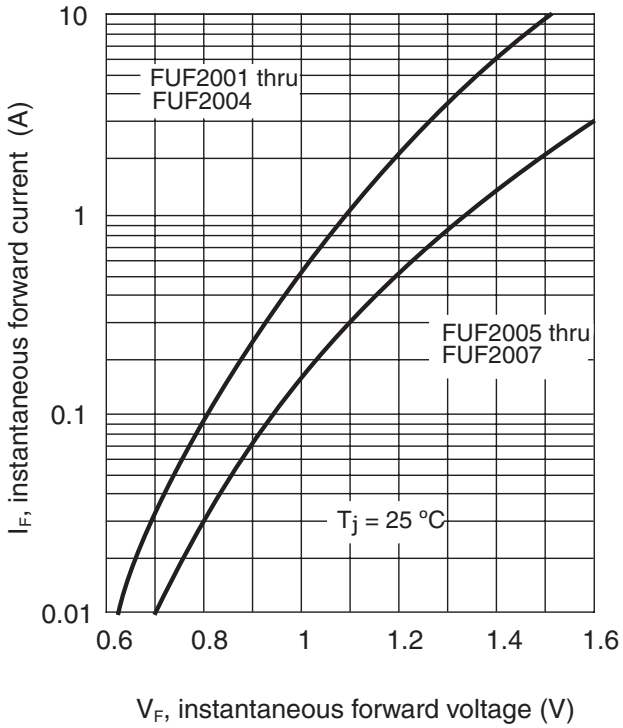
Ratings and Characteristics (Ta 25 ºC unless otherwise noted)

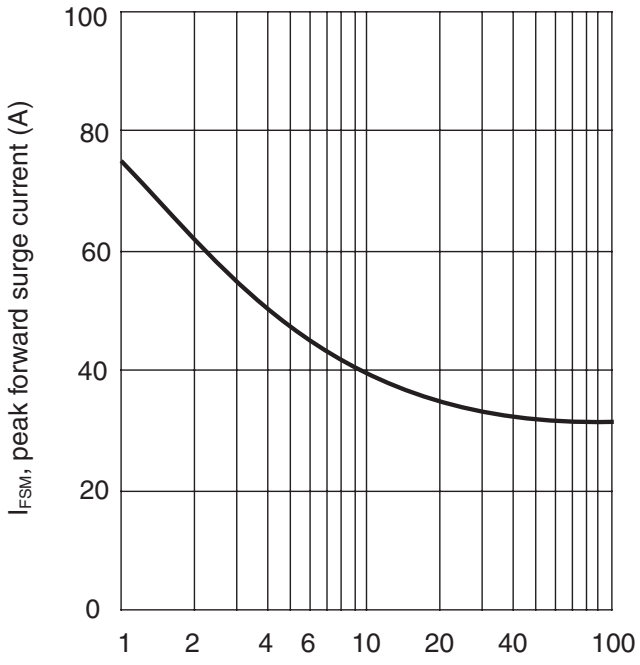
FORWARD CURRENT DERATING CURVE



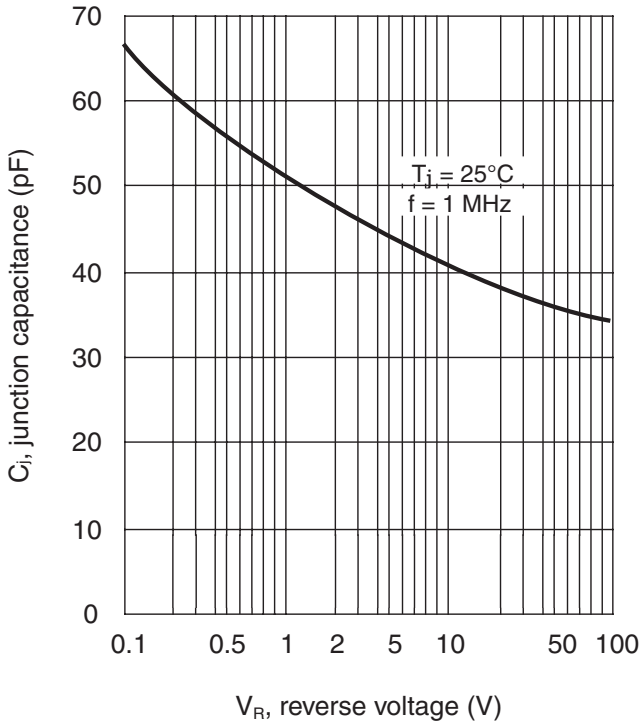
TYPICAL FORWARD CHARACTERISTIC



MAXIMUM NON REPETITIVE PEAK FORWARD SURGE CURRENT



TYPICAL JUNCTION CAPACITANCE



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Revision History

Date	Revision	Description of Changes
12-Jul-1999	0	Original Data Sheet
15-Jun-2016	1	Format update

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