





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

<p><b>DO-204AL (DO-41)</b></p> 	<p><b>Voltage</b> 50V to 1000V</p>	<p><b>Current</b> 1 A at 55 °C</p>	
			
	<p><b>FEATURES</b></p> <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</b> COMPLIANT
	<p><b>MECHANICAL DATA</b></p> <ul style="list-style-type: none"> <li><b>Case:</b> DO-204AL (DO-41). 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>		
<p><b>TYPICAL APPLICATIONS</b></p> <p>Used in high frequency rectifier of switching mode power supplies, inverters, freewheeling diodes, dc-to-dc converters, and other power switching application.</p>			

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

Marking Code		FUF 4001	FUF 4002	FUF 4003	FUF 4004	FUF 4005	FUF 4006	FUF 4007
V <sub>RRM</sub>	Peak Recurrent Reverse Voltage (V)	50	100	200	400	600	800	1000
V <sub>RMS</sub>	Maximum RMS Voltage (V)	35	70	140	280	420	560	700
V <sub>DC</sub>	Maximum DC Blocking Voltage (V)	50	100	200	400	600	800	1000
I <sub>F(AV)</sub>	Forward current at Tamb = 55 °C	1.0 A						
I <sub>FRM</sub>	Recurrent peak forward surge current	10 A						
I <sub>FSM</sub>	8.3 ms. peak forward surge current (Jedec Method)	30 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>	15 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> = 0.5 A ; T <sub>j</sub> = 25 °C	20 mJ						

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

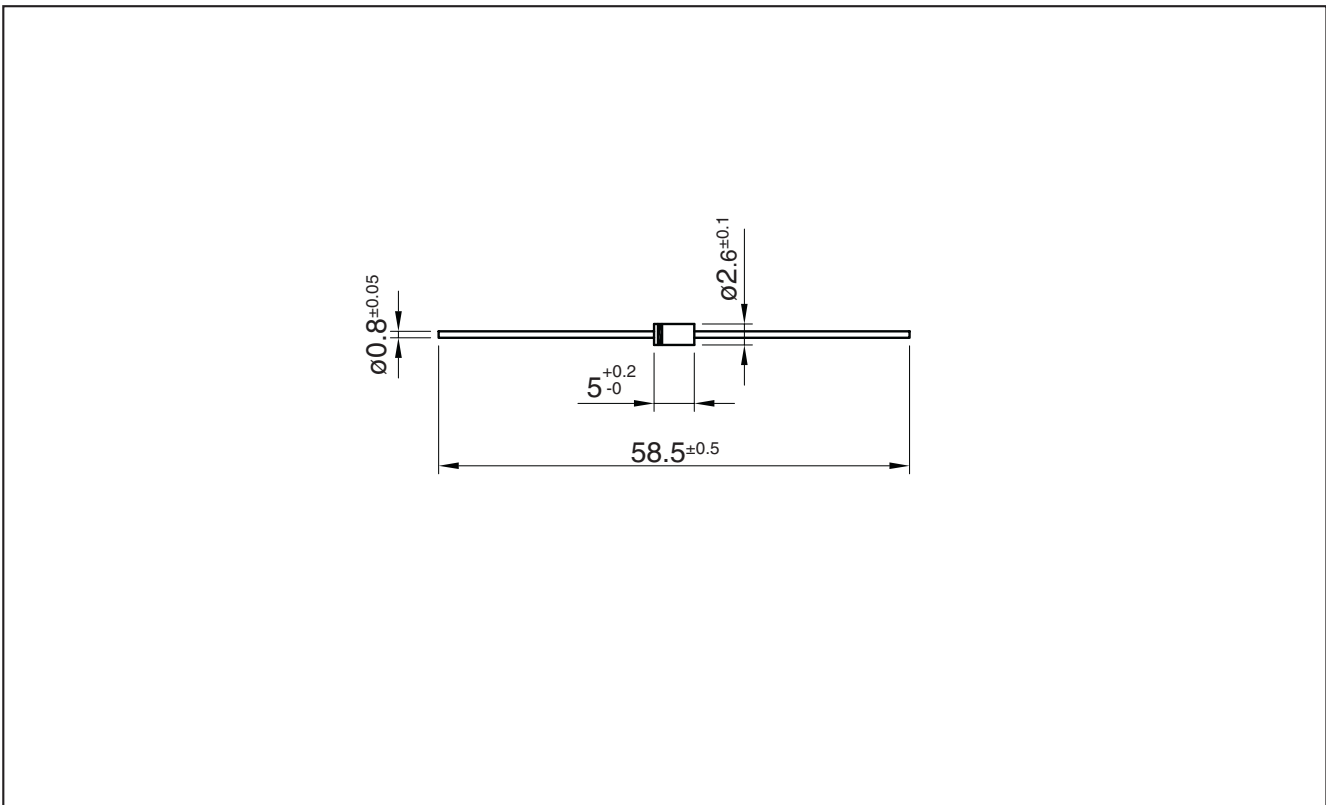
V <sub>F</sub>	Maximum forward voltage drop at I <sub>F</sub> = 1 A	1.3 V	1.7 V
I <sub>R</sub>	Max. reverse current at V <sub>RRM</sub> at 25 °C	5 µA	
R <sub>th(j-a)</sub>	Max. thermal resistance (l = 10mm)	50 °C/W	

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**Ordering information**

PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
FUF4002 AMP	AMP	AMMO BOX	5,000	0.325
FUF4002 TR	TR	14" diameter tape and reel	5,000	0.325

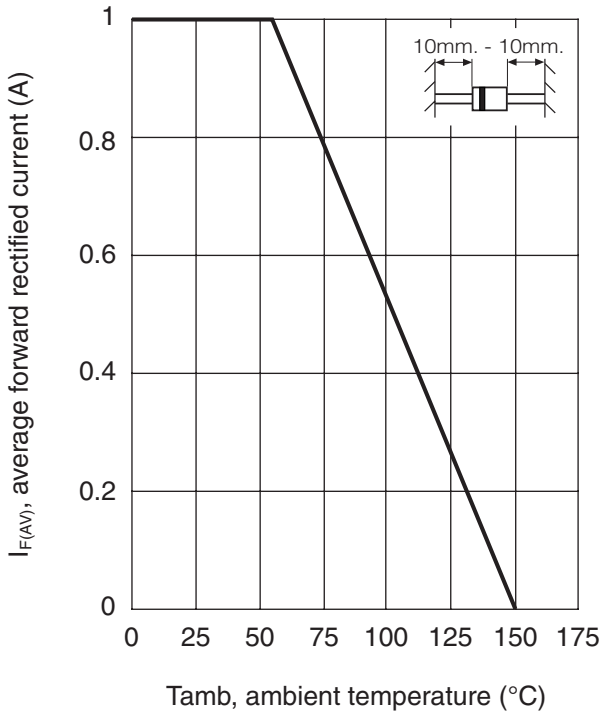
**Package Outline Dimensions: (mm) DO-204AL (DO-41)**



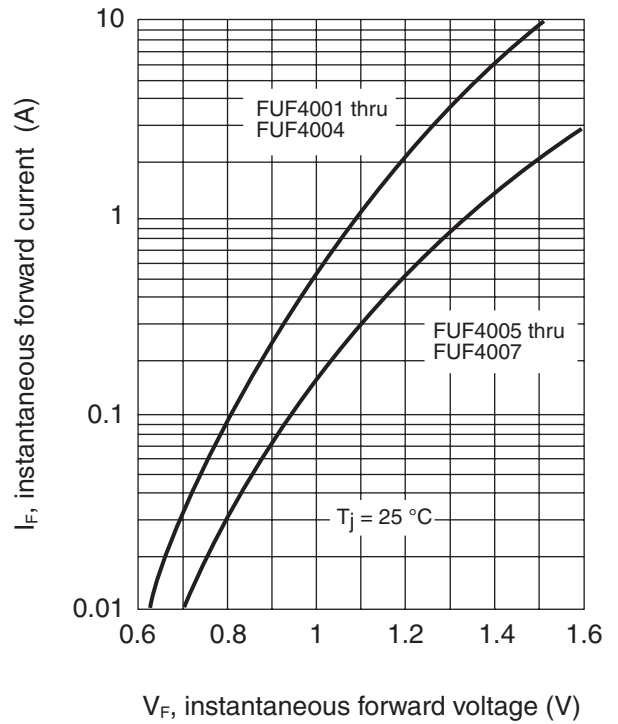
**1.0 Amp. Glass Passivated Ultrafast Recovery Rectifier**

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

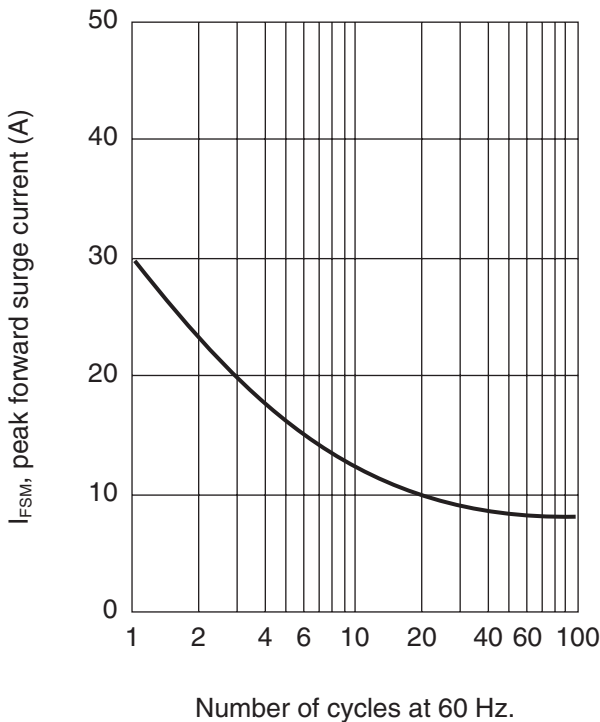
**FORWARD CURRENT DERATING CURVE**



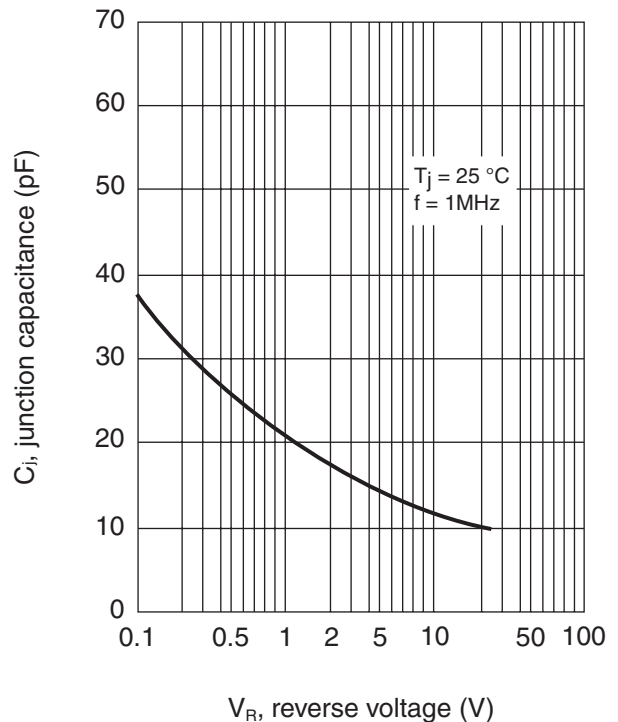
**TYPICAL FORWARD CHARACTERISTIC**



**MAXIMUM NON REPETITIVE PEAK FORWARD SURGE CURRENT**



**TYPICAL JUNCTION CAPACITANCE**



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

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

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