






## 1.0 Amp. Glass Passivated Junction Rectifier

<p><b>DO-204AL (DO-41)</b></p> 	<p><b>Voltage</b> 50V to 1000 V</p>	<p><b>Current</b> 1.0 A at 75° C</p>	
			
	<p><b>FEATURES</b></p> <ul style="list-style-type: none"> <li>Glass passivated chip junction</li> <li>Hyperectifier structure for high reliability</li> <li>Cavity-free glass-passivated junction</li> <li>Low forward voltage drop</li> <li>Low leakage current, typical <math>I_R</math> less than 0.1 <math>\mu</math>A</li> <li>High forward surge capability</li> <li>Solder dip 260°C, 10s</li> <li>Component in accordance to RoHS 2011/65/EU and WEEE 2002/96/EC</li> </ul>		   <b>RoHS COMPLIANT</b>
	<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. HE3 suffix for high reliability grade (AEC Q101 qualified), meets JESD 201 class 2 whisker test.</li> </ul>		
<p><b>TYPICAL APPLICATIONS</b></p> <p>Used in general purpose rectification of power supplies, inverters, converters and freewheeling diodes for consumer, automotive and telecommunication.</p>			

### Maximum Ratings and Electrical Characteristics at 25°C

		1N4001GP	1N4002GP	1N4003GP	1N4004GP	1N4005GP	1N4006GP	1N4007GP
$V_{RRM}$	Peak Recurrent Reverse Voltage (V)	50	100	200	400	600	800	1000
$I_{F(AV)}$	Forward Current at $T_{amb} = 75^\circ C$	1.0 A						
$I_{FRM}$	Recurrent Peak Forward Current	10 A						
$I_{FSM}$	8.3 ms. Peak Forward Surge Current (Jedec Method)	30 A						
$I^2t^*$	Rating for fusing ( $t < 8.3ms$ )	3.7 A <sup>2</sup> s						
$T_j$	Operating Temperature Range	-65 to +175°C						
$T_{stg}$	Storage Temperature Range	-65 to +175°C						
$E_{RSM}$	Maximum non Repetitive Peak Reverse Avalanche energy. $I_R = 0.5 A; T_j = 25^\circ C$	20 mJ						

### Electrical Characteristics at $T_{amb} = 25^\circ C$

$V_F$	Maximum Forward Voltage Drop at $I_F = 1 A$	1.1 V
$I_R$	Maximum Reverse Current at $V_{RRM}$	5 $\mu$ A
	at 25 °C	50 $\mu$ A
	at 125 °C	
$R_{th(j-a)}$	Thermal Resistance ( $l = 10mm.$ )	Max. 60 °C/W
		Typ. 45 °C/W

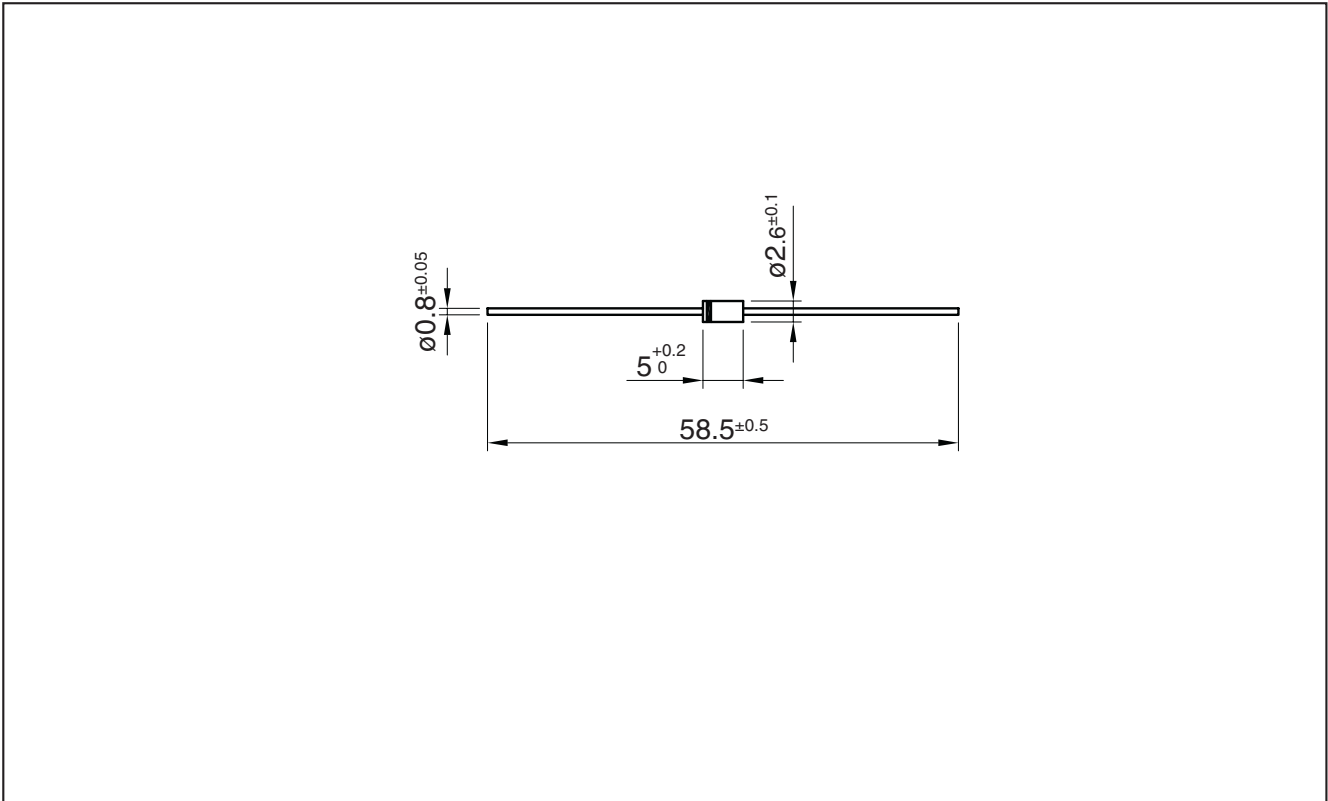
\* For device using on bridge rectifier application

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**Ordering information**

PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
1N4003GP AMP	AMP	AMMO BOX	5,000	0.325
1N4003GP TR	TR	14" diameter tape and reel	5,000	0.325
1N4003GP HE3 AMP	AMP	AMMO BOX	5,000	0.325
1N4003GP HE3 TR	TR	14" diameter tape and reel	5,000	0.325

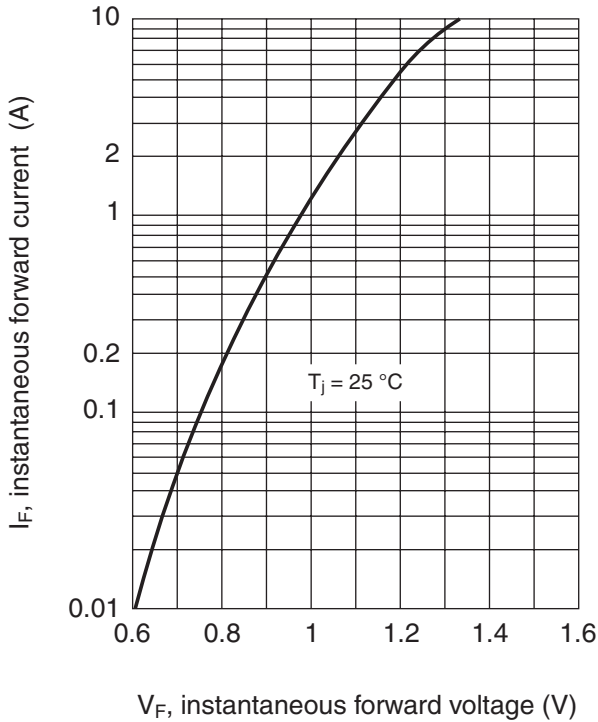
**Package Outline Dimensions: (mm) DO-204AL (DO-41)**



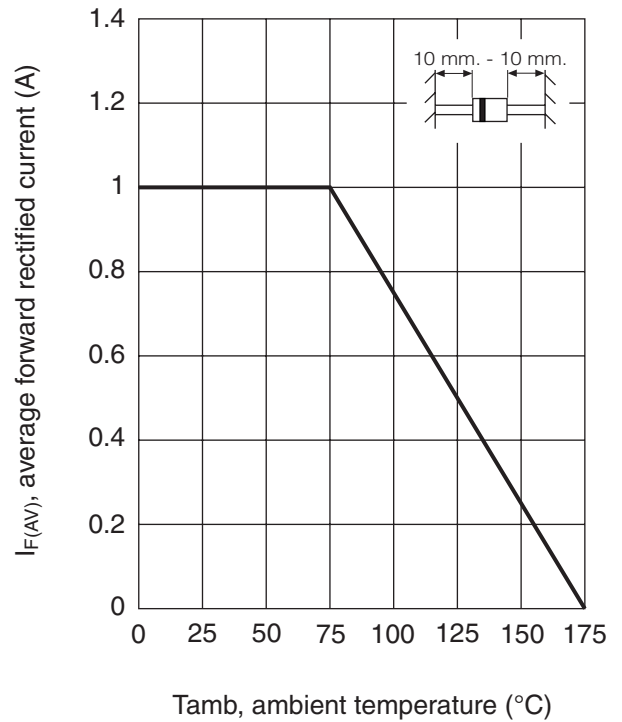
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**Ratings and Characteristics (Ta 25 °C unless otherwise noted)**

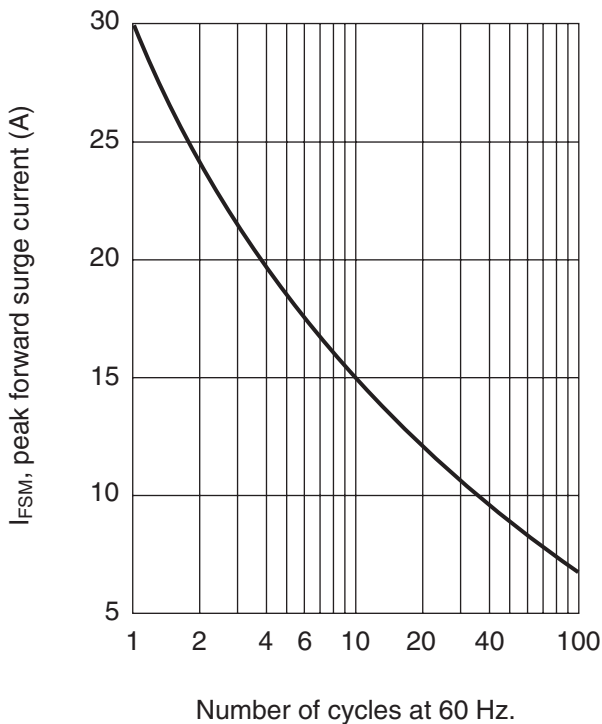
TYPICAL FORWARD CHARACTERISTIC



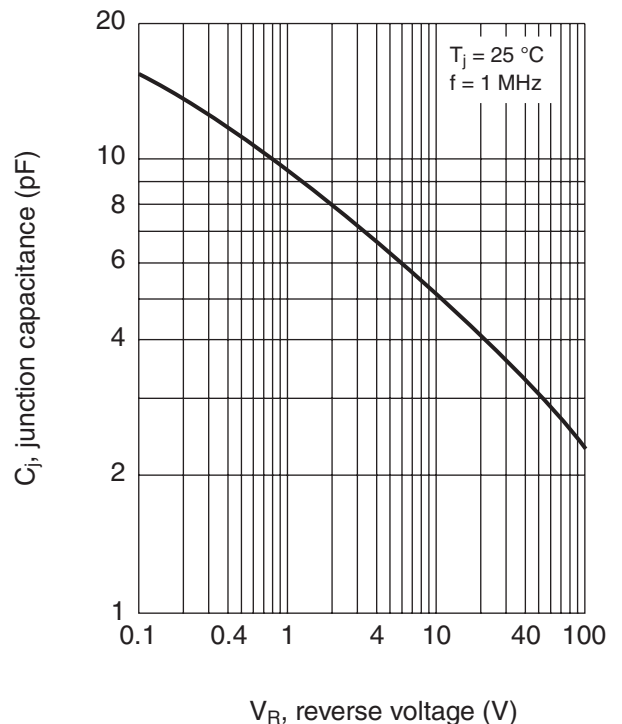
FORWARD CURRENT DERATING CURVE



MAXIMUM NON REPETITIVE PEAK FORWARD SURGE CURRENT



TYPICAL JUNCTION CAPACITANCE



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