





**1.0 Amp. Schottky Barrier Rectifier**

<b>DO-204AL (DO-41)</b>  	<b>Voltage</b> 20 V to 40 V	<b>Current</b> 1.0 A	
	<b>FEATURES</b> <ul style="list-style-type: none"> <li>• Low power losses, high efficiency</li> <li>• High surge current capability</li> <li>• High frequency operation</li> <li>• Guarding for overvoltage protection</li> <li>• Low forward voltage drop</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>• Halogen-free available according to IEC 61249-2-21 definition</li> </ul>		  <b>RoHS</b> COMPLIANT 
	<b>MECHANICAL DATA</b> <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>		
	<b>TYPICAL APPLICATIONS</b> Used in low voltage high frequency inverters, freewheeling, dc-to-dc converters, and polarity protection applications.		

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

		1N5817	1N5818	1N5819
$V_{RRM}$	Maximum Recurrent Peak Reverse Voltage (V)	20	30	40
$V_{RMS}$	Maximum RMS Voltage (V)	14	21	28
$V_{DC}$	Maximum DC Blocking Voltage (V)	20	30	40
$I_{F(AV)}$	Maximum Average Forward Rectified Current 9.5mm Lead Length @ $T_c = 90^\circ\text{C}$ (See graphic)	1.0 A		
$I_{FSM}$	8.3 ms. Peak Forward Surge Current (Jedec Method)	30 A		
$C_j$	Typical Junction Capacitance	55 pF		
$T_j$	Operating Temperature Range	-55 to +125 °C		
$T_{stg}$	Storage Temperature Range	-55 to +150 °C		

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

$V_F$	Maximum Instantaneous Forward Voltage $I_F = 1.0\text{ A}$ (Note 1)	0.45 V	0.550 V	0.600 V
$V_F$	Maximum Instantaneous Forward Voltage $I_F = 3.0\text{ A}$ (Note 1)	0.750 V	0.875 V	0.900 V
$I_R$	Maximum DC Reverse Current $T_j = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_j = 125^\circ\text{C}$ (Note 3)	1.0 mA		
		15 mA		
$R_{th(j-a)}$	Typical Thermal Resistance (Note 2)	100 °C/W		
$R_{th(j-c)}$		45 °C/W		

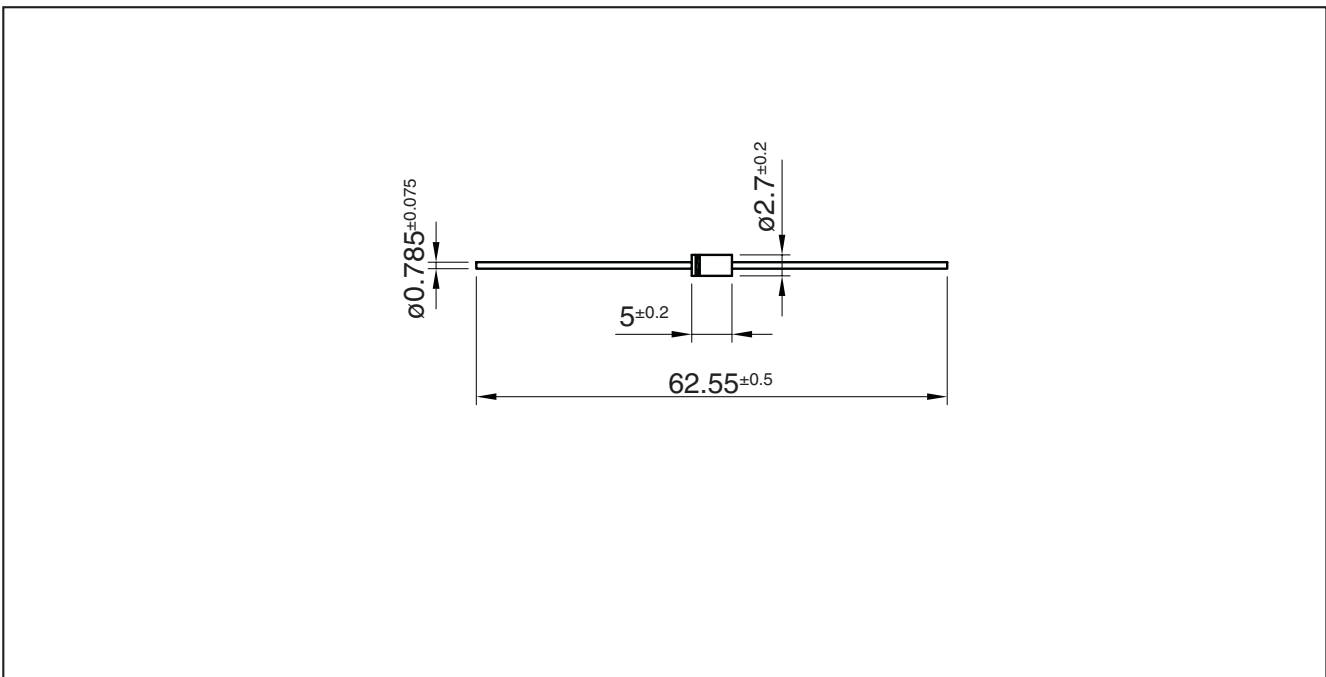
Notes: 1. Pulse Test: 300µ Pulse Width, 1% Duty Cycle  
 2. Thermal Resistance from Junction to Case per diode  
 3. Pulse test: Pulse width  $\leq 40\text{ms}$

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**Ordering information**

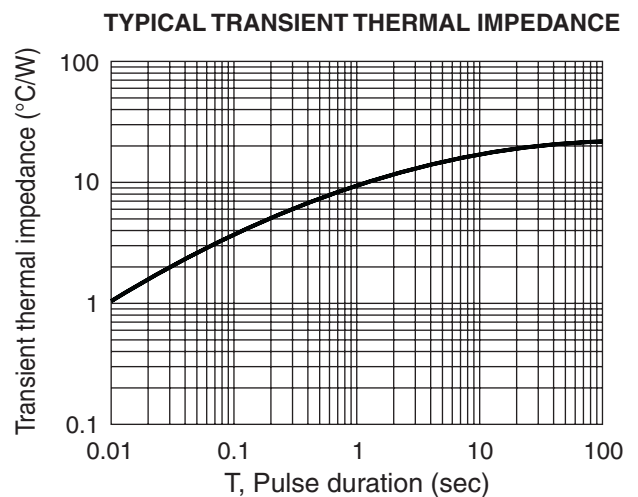
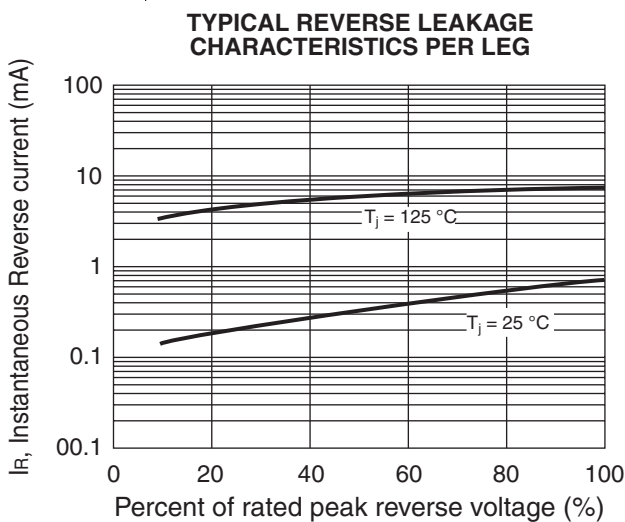
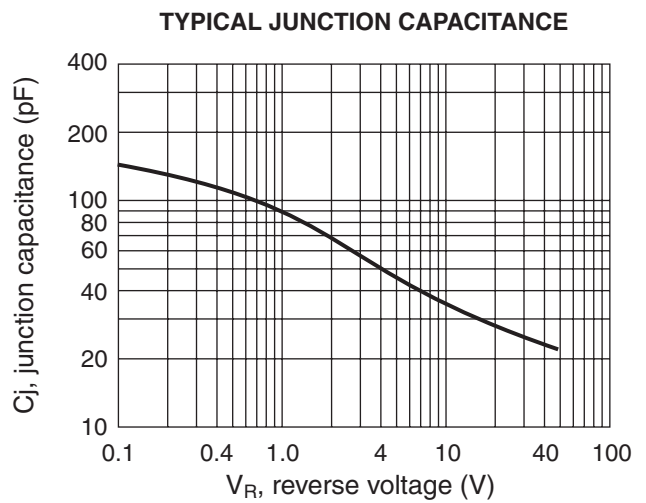
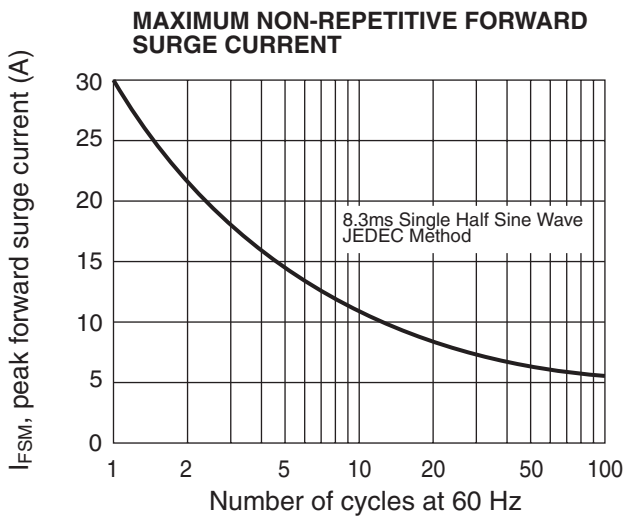
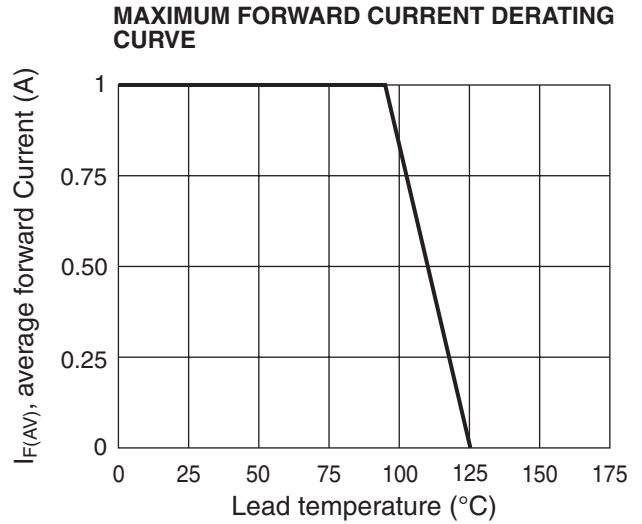
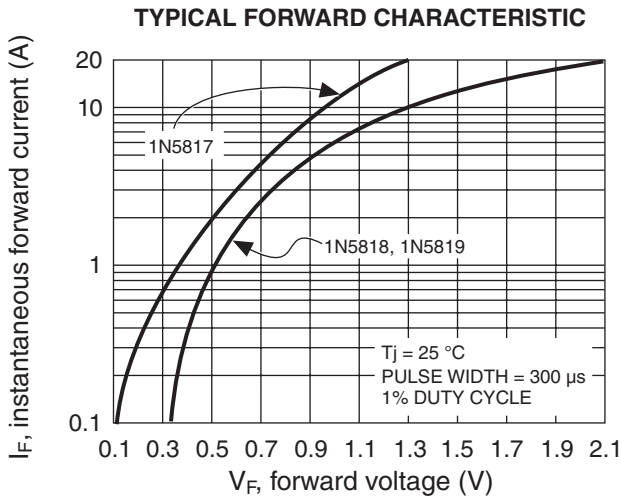
PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
1N5819 AMP	AMP	AMMO BOX	3,000	0.325
1N5819 TR	TR	13" diameter tape and reel	5,000	0.325
1N5819 HF AMP	AMP	AMMO BOX	3,000	0.325
1N5819 HF TR	TR	13" diameter tape and reel	5,000	0.325

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



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



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### Revision History

Date	Revision	Description of Changes
14-Oct-2011	0	Original Data Sheet
27-Feb-2013	1	Change: Tj - Tstg, IR & Outline dimensions

## Disclaimer

All product, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise.

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