

# **SENSITRON** **SEMICONDUCTOR**

1N5415,US  
1N5416,US  
1N5417,US  
1N5418,US  
1N5419,US  
1N5420,US

**TECHNICAL DATA**  
**DATA SHEET 125, REV D**

<b>JAN</b>	<b>SJ</b>
<b>JANTX</b>	<b>SX</b>
<b>JANTXV</b>	<b>SV</b>

**HIGH CURRENT AXIAL LEAD/SURFACE MOUNT RECTIFIERS**

- Hermetic, non-cavity glass package
- Metallurgically bonded
- Manufacture & screen to JANS per MIL-PRF-19500/411 using Sensitron specification, 7700-409X
- Physical dimensions: Axial lead similar to DO-35 and surface mount similar to D-5

**DESCRIPTION: 400 VOLT, 3.0 AMP, 150 NANOSECOND RECTIFIER**

**MAX. RATINGS / ELECTRICAL CHARACTERISTICS** All ratings are at  $T_A = 25^\circ\text{C}$  unless otherwise specified.

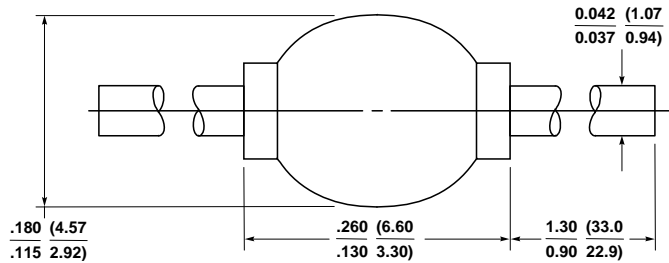
<b>RATING</b>	<b>CONDITIONS</b>	<b>MIN</b>	<b>TYP</b>	<b>MAX</b>	<b>UNIT</b>
Peak Inverse Voltage (PIV) 1N5415,US 1N5416,US 1N5417,US 1N5418,US 1N5419,US 1N5420,US	-	-	-	50 100 200 400 500 600	Vdc
Average DC Output Current ( $I_o$ )	$T_A = +55^\circ\text{C}$	-	-	3.0	Amps
Peak Single Cycle Surge Current ( $I_{fsm}$ )	$t_p = 8.3$ ms Single Half Cycle Sine Wave, Superimposed On Rated Load	-	-	80	Amps(pk)
Operating and Storage Temp. ( $T_{op}$ & $T_{stg}$ )	-	-65	-	+175	$^\circ\text{C}$
Maximum Forward Voltage ( $V_f$ ) 1N5415/US, 1N5416,US 1N5417,US, 1N5418,US 1N5419/US, 1N5420,US	$I_f = 9.0\text{A}$ (300 $\mu\text{sec}$ pulse, duty cycle < 2%)	-	-	1.6 1.7 1.8	Volts
Maximum Instantaneous Reverse Current At Rated (PIV)	$T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	-	-	1.0 20	$\mu\text{Amps}$
Reverse Recovery Time ( $t_{rr}$ ) 1N5415/US, 1N5416,US 1N5417,US, 1N5418,US 1N5419/US, 1N5420,US	$I_f = 0.5\text{A}$ , $I_r = 1.0\text{A}$ , $I_{rr} = 0.25\text{A}$	-	-	150 150 250 400	nsec
Thermal Resistance ( $\theta_{JL}$ )	$d = 0.375''$	-	-	22	$^\circ\text{C/W}$
Thermal Resistance ( $\theta_{JC}$ )	$L=0$ for US versions	-	-	6.5	$^\circ\text{C/W}$

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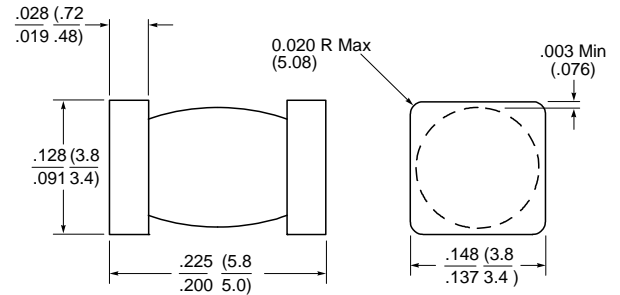
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## TECHNICAL DATA DATA SHEET 125, REV D

### MECHANICAL DIMENSIONS In Inches / (mm), min./max.



PKG. 301



MELF-B



**Note:** The cathode side is marked with a dark colored band on one side of the diode body.

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