

SENSITRON **SEMICONDUCTOR**

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

TECHNICAL DATA
DATA SHEET 125, REV D

JAN	SJ
JANTX	SX
JANTXV	SV

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.

RATING	CONDITIONS	MIN	TYP	MAX	UNIT
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 μsec 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	μAmps
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 (θ_{JL})	$d = 0.375''$	-	-	22	$^\circ\text{C/W}$
Thermal Resistance (θ_{JC})	$L=0$ for US versions	-	-	6.5	$^\circ\text{C/W}$

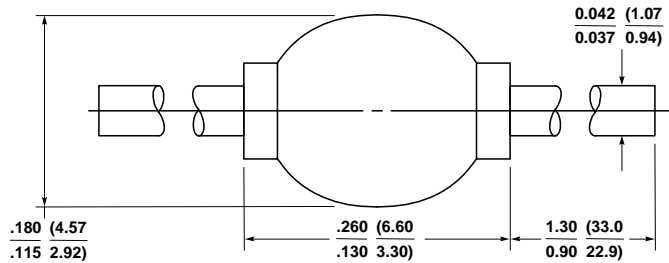
SENSITRON

SEMICONDUCTOR

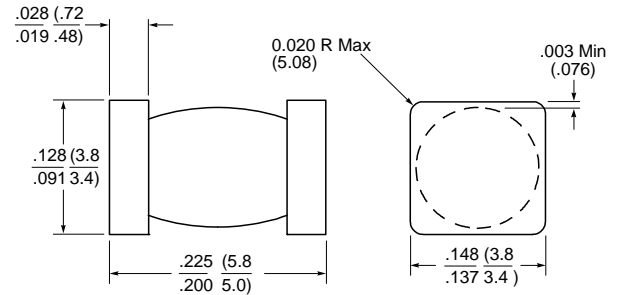
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MECHANICAL DIMENSIONS In Inches / (mm), min./max.



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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