<u>SENSITRON</u> SEMICONDUCTOR

TECHNICAL DATA DATA SHEET 125, REV D

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

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 $T_A = 25^{\circ}C$ 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 °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	°C
Maximum Forward Voltage (V _f) 1N5415/US, 1N5416,US 1N5417,US, 1N5418,US 1N5419/US, 1N5420,US	l _f = 9.0A (300 μsec pulse, duty cycle < 2%)	-	-	1.6 1.7 1.8	Volts
Maximum Instantaneous Reverse Current At Rated (PIV)	$T_A = 25^{\circ} C$ $T_A = 100^{\circ} C$	-	-	1.0 20	μAmps
Reverse Recovery Time (t _{rr}) 1N5415/US, 1N5416,US 1N5417,US, 1N5418,US 1N5419/US, 1N5420,US	I _f = 0.5A, I _r = 1.0A, I _{rr} = 0.25A	-	-	150 150 250 400	nsec
Thermal Resistance (θ_{JL})	d = 0.375"	-	-	22	° C/W
Thermal Resistance (θ_{JC})	L=0 for US versions	-	-	6.5	° C/W

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

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