

# SENSITRON SEMICONDUCTOR

TECHNICAL DATA  
DATA SHEET 6028, REV A

1N3890/R, 1N3891/R, 1N3893/R  
1N3890A/R, 1N3891A/R, 1N3893A/R

**FAST RECOVERY DIODE**

AVAILABLE AS

1N

JAN, JANTX, JANTXV, JANS

## Fast Recovery Rectifier

Qualified per MIL-PRF-19500/304

### DESCRIPTION:

This hermetically sealed fast recovery rectifier diode series is military qualified per MIL-PRF-19500/304 and is targeted for space, commercial and military aircraft, military vehicles, shipboard markets and all high reliability applications.

### ✓ FEATURES / BENEFITS

- ✓ Hermetic package
- ✓ All devices are 100% hot solder dipped
- ✓ JAN/ JANTX/JANTXV/JANS available per MIL-PRF-19500/304

### ELECTRICAL CHARACTERISTICS

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

RATING	CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Voltage ( $V_R$ ) 1N3890/R, 1N3890A/R 1N3891/R, 1N3891A/R 1N3893/R, 1N3893A/R	-	-	-	100 200 400	V
Average DC Output Current ( $I_o$ ) 1N3890/R, 1N3891/R, 1N3893/R 1N3890A/R, 1N3891A/R, 1N3893A/R	$T_C = +100^\circ\text{C}$	-	-	12 20	Amps
Peak Single Cycle Surge Current ( $I_{ism}$ ) 1N3890/R, 1N3891/R, 1N3893/R 1N3890A/R, 1N3891A/R, 1N3893A/R	$T_C = +100^\circ\text{C}$ $t_p = 8.3$ ms Single Half Cycle Sine Wave, Superimposed On Rated Load	-	-	175 250	Amps(pk)
Junction and Storage Temp. ( $T_J$ & $T_{stg}$ )	-	-65	-	+175	$^\circ\text{C}$
Working Peak Reverse Voltage 1N3890/R, 1N3890A/R 1N3891/R, 1N3891A/R 1N3893/R, 1N3893A/R		-	-	100 200 400	Volts (pk)
Reverse Recovery Time ( $t_{rr}$ ) 1N3890/R, 1N3891/R, 1N3893/R 1N3890A/R, 1N3891A/R, 1N3893A/R		-	-	200 150	nsec
Thermal Resistance ( $R\theta_{JC}$ ) 1N3890, 1N3891, 1N3893 1N3890A, 1N3891A, 1N3893A 1N3890R, 1N3891R, 1N3893R 1N3890AR, 1N3891AR, 1N3893AR		-	-	2.0 1.5 3.0 2.5	$^\circ\text{C/W}$

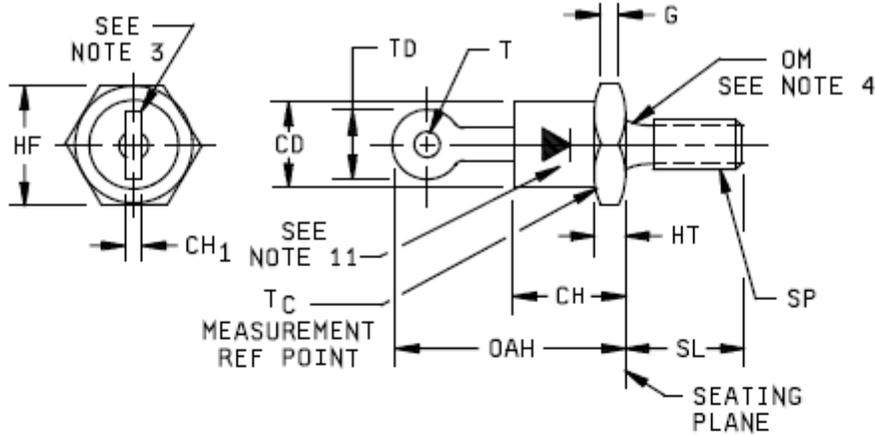
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## PACKAGE DIMENSIONS (inches)



Ltr	Dimensions				Notes
	Inches		Millimeters		
	Min	Max	Min	Max	
CD		.424		10.77	
CH		.405		10.29	
CH <sub>1</sub>	.020	.065	0.51	1.65	9
G		.060		1.52	
HF	.424	.437	10.77	11.10	
HT	.075	.175	1.90	4.44	
OAH		.800		20.32	
OM	.163	.189	4.14	4.80	
SL	.422	.453	10.72	11.50	
SP					5, 6, 7, 8
T	.060		1.52		
TD		.250		6.35	

### NOTES:

1. Dimensions are in inches.
2. Millimeters are given for general information only.
3. Angular orientation of this terminal is undefined. Square or radius on end of terminals is optional.
4. Diameter variations within these limits are permitted.
5. The ANSI thread reference is 0.190-32 UNF-2A.
6. Max pitch diameter of plated threads shall be basic pitch diameter 0.169 inch (4.29 mm) reference FED-STD-H28 (Screw Thread Standards for Federal Services.)
7. Units must not be damaged by torque of 15 inch-pounds applied to 0.190-32 UNF-2B nut assembled on thread.
8. Complete threads to extend to within 0.078 inch (1.98 mm) of the seating plane.
9. Terminal-end shape is unrestricted.
10. Reversed (anode to stud) units shall be marked with an "R" following the last digit in the type number.
11. Forward polarity (cathode to stud) marking is shown.

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