

# 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	$^\circ\text{C/W}$

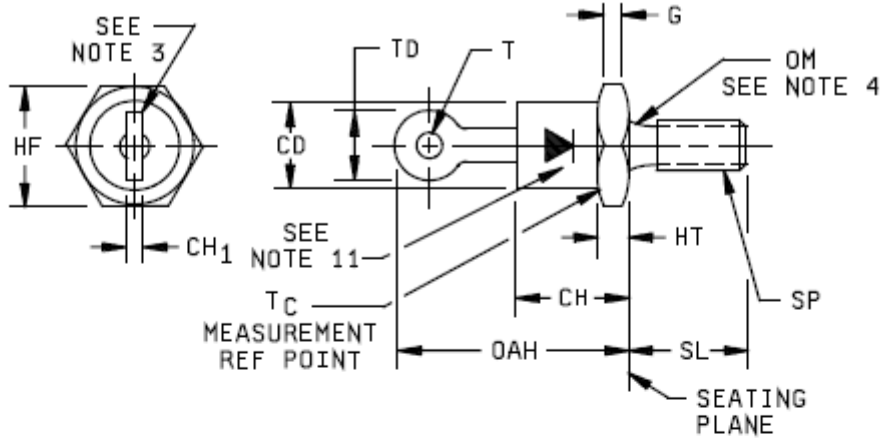
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## PACKAGE DIMENSIONS (inches)



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:

- Dimensions are in inches.
- Millimeters are given for general information only.
- Angular orientation of this terminal is undefined. Square or radius on end of terminals is optional.
- Diameter variations within these limits are permitted.
- The ANSI thread reference is 0.190-32 UNF-2A.
- 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.)
- Units must not be damaged by torque of 15 inch-pounds applied to 0.190-32 UNF-2B nut assembled on thread.
- Complete threads to extend to within 0.078 inch (1.98 mm) of the seating plane.
- Terminal-end shape is unrestricted.
- Reversed (anode to stud) units shall be marked with an "R" following the last digit in the type number.
- Forward polarity (cathode to stud) marking is shown.

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