

# New Jersey Semi-Conductor Products, Inc.

20 STERN AVE.  
SPRINGFIELD, NEW JERSEY 07081  
U.S.A.

TELEPHONE: (973) 376-2922  
(212) 227-6005  
FAX: (973) 376-8960

## Features

- 1500 Watts for 1 ms Pulse Power Capability
- Small Physical Size

## Description

Zener diodes with a high surge capability  
Glass Body Diodes

1N5610,1N5611,1N5612,1N5613

**TRANSIENT  
SUPPRESSOR  
DIODE**

## Absolute Maximum Ratings (@ 25°C unless noted)

	1N5610	1N5611	1N5612	1N5613
Forward Surge Current,	200 A	200 A	200 A	200 A
Zener Surge Current, @ 25C	32.0 A	24.0 A	19.0 A	5.7 A
Zener Surge Current @ 150C	5.5 A	4.8 A	3.2 A	1.0 A
Storage and Operating Temperature	-65C to + 175C			
Zener Voltage	See Electrical Characteristics			
Surge Power	See Graphs			

## Electrical Characteristics (T = 25°C unless otherwise noted)

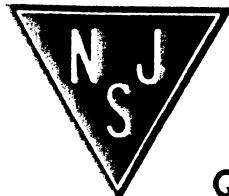
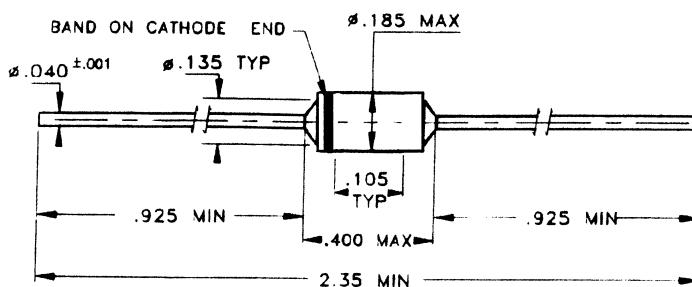
DEVICE TYPE	Min. Zener Voltage $\delta$ Vz @ 1mA	Max. Zener Voltage $\lambda$ Vz @ Is		MAX. Reverse Leakage Current I <sub>R</sub> @ V <sub>R</sub>		MAX. Forward V $\xi$ @ 100 A	Typical Temp. Coefficient	
		Volts	Volts	Amps	$\mu$ A	Volts		
1N5610	33.0	47.5	32.0	32.0	5.0	30.5	4.8	.093
1N5611	43.7	63.5	24.0	24.0	5.0	40.3	4.8	.094
1N5612	54.0	78.5	19.0	19.0	5.0	49.0	4.8	.096
1N5613	191	265	5.7	5.7	5.0	175	4.8	.100

### NOTES:

$\delta$  Duration of applied current  $\leq$  300 ms, Duty cycle  $\leq$  2%.

$\lambda$  Use a pulse which decays exponentially to 50 % of peak value during 1 ms.

$\xi$  Peak Sinusoidal surge current of 8.3 ms duration, non repetitive



Quality Semi-Conductors