

# 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

## SILICON JUNCTION DIODE

### TYPE

1N301  
 1N301A  
 1N301B

The 1N301, 1N301A and the 1N301B are hermetically sealed silicon junction diodes designed for general purpose applications and providing extreme stability, wide temperature range, high back resistance (100 meg-ohms or more), and high ratio of back to forward resistance. The flexible terminal leads may be soldered or welded directly to the terminals of circuit components without the use of sockets. Standard inline subminiature sockets may be used by cutting the leads to a suitable length.

### MECHANICAL DATA

**CASE** : Metal and Glass

**BASE** : None (0.016" tinned domet wire. Length: 1.0" min.  
 Spacing: 0.080" center-to-center)

**TERMINAL CONNECTIONS** : (Black dot is adjacent to Cathode Terminal)

### ELECTRICAL DATA

#### RATINGS - ABSOLUTE MAXIMUM VALUES :

	1N301	1N301A	1N301B	
Peak Inverse Voltage	70	70	70	Volts
Average Rectified Current @ 25° C	45	65	75	ma.
Average Rectified Current @ 100° C	25	45	55	ma.
Average Rectified Current @ 150° C	12	20	25	ma.
Surge Current (for 1 sec.) @ 25° C	350	500	550	ma.
Surge Current (for 1 sec.) @ 100° C	200	350	350	ma.
Ambient Temperature Range		-65 to +150		° C
Dissipation @ 25° C	150	150	150	mw/° C
Derated above 25° C	1	1	1	mw/° C

#### SPECIFIC CHARACTERISTICS : @25° C (Note 1)

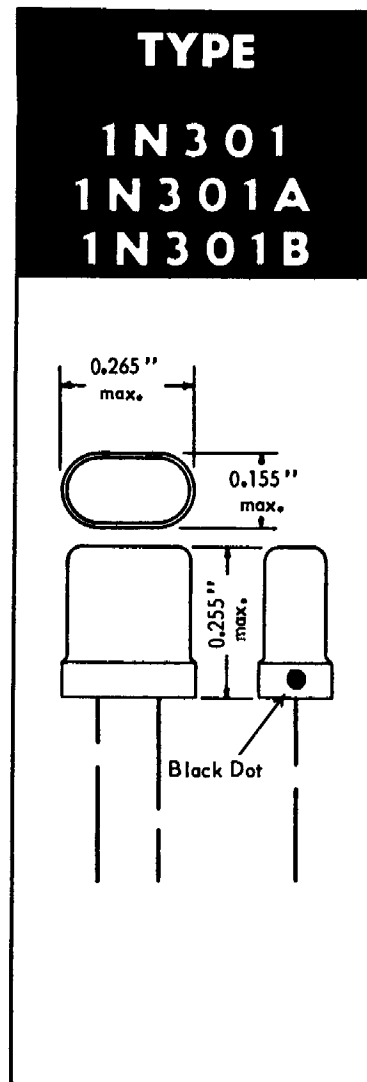
	1N301	1N301A	1N301B	
Minimum Forward Current at +1 volt	5	18	50	ma.
Maximum Reverse Current at -10 volts	0.01	0.01	0.01	µa
Maximum Reverse Current at -50 volts	0.05	0.05	0.05	µa

#### TYPICAL CHARACTERISTICS : (Note 2)

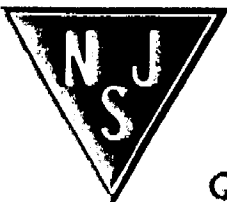
	1N301	1N301A	1N301B	
Maximum Inverse Current at -10 volts (100° C)	0.2	0.2	0.2	µa
Maximum Inverse Current at -10 volts (100° C)	1.0	1.0	1.0	µa
Maximum Inverse Current at -10 volts (150° C)	4.0	4.0	4.0	µa
Maximum Inverse Current at -50 volts (150° C)	8.0	8.0	8.0	µa
Minimum Forward Current at +1 volt (100° C)	5	18	50	ma.
Minimum Forward Current at +1 volt (150° C)	5	18	50	ma.
Maximum Capacity at -10 volts (25° C)	4	5	5.5	µfdfs
Maximum Capacity at -50 volts (25° C)	2	3	3	µfdfs

#### Inverse Pulse Recovery (Note 3)

- 30 ma. x -35 volts and 10 ma. x -10 volts  
 Recover to 5 K at 1 µsec.
- 25 K at 2 µsec.
- 80 K at 3 µsec.
- 500 K at 5 µsec.
- 5 ma. x -40 volts  
 Recovers to 40 K at 1 µsec.
- 250 K at 2 µsec.
- 500 K at 3 µsec.
- 1 megohm at 5 µsec.



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Quality Semi-Conductors