*New Jersey Semi-Conductor Products, Inc.*

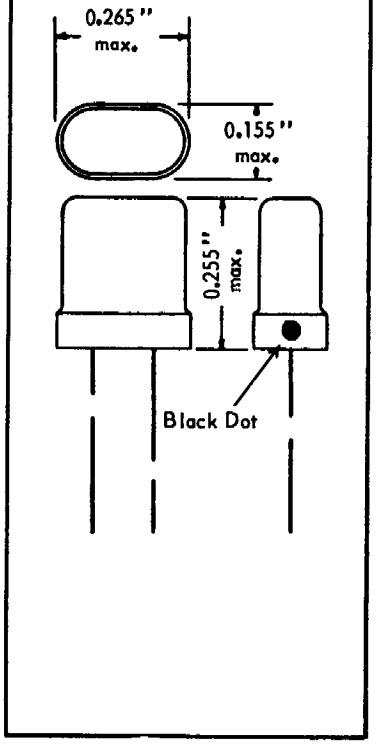
20 STERN AVE.
SPRINGFIELD, NEW JERSEY 07081
U.S.A.

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 dumet 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)

| | | | | |
|---|---|---|---|---|
| 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)

| | | | | |
|---|---|---|---|---|
| Maximum Inverse Current at −10 volts (100° C) | 0.2 | 0.2 | 0.2 | μa |
| Maximum Inverse Current at −50 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 | μμfds |
| Maximum Capacity at −50 volts (25° C) | 2 | 3 | 3 | μμfds |

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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