

1N5629A
thru
1N5665A

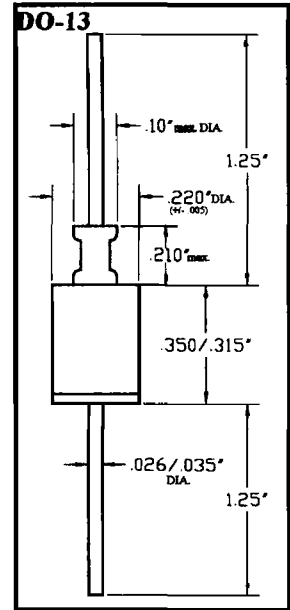
1500 WATT SILICON TRANSIENT SUPPRESSOR DIODES

AVAILABLE IN VOLTAGES FROM 5.8V THRU 171V

The NES 1N5629A to 1N5665A series of Silicon Voltage Transient Suppressor diodes are designed to protect airborne and telephone electronic equipment from failure due to high voltage transients. Also, because of their high surge capability and the inherent fast response time of the clamping voltage, which is theoretically instantaneous (1×10^{-12} seconds), these devices can also be useful in the protection of Integrated Circuits, Mosfets, Hybrids and other voltage sensitive semiconductors and components.

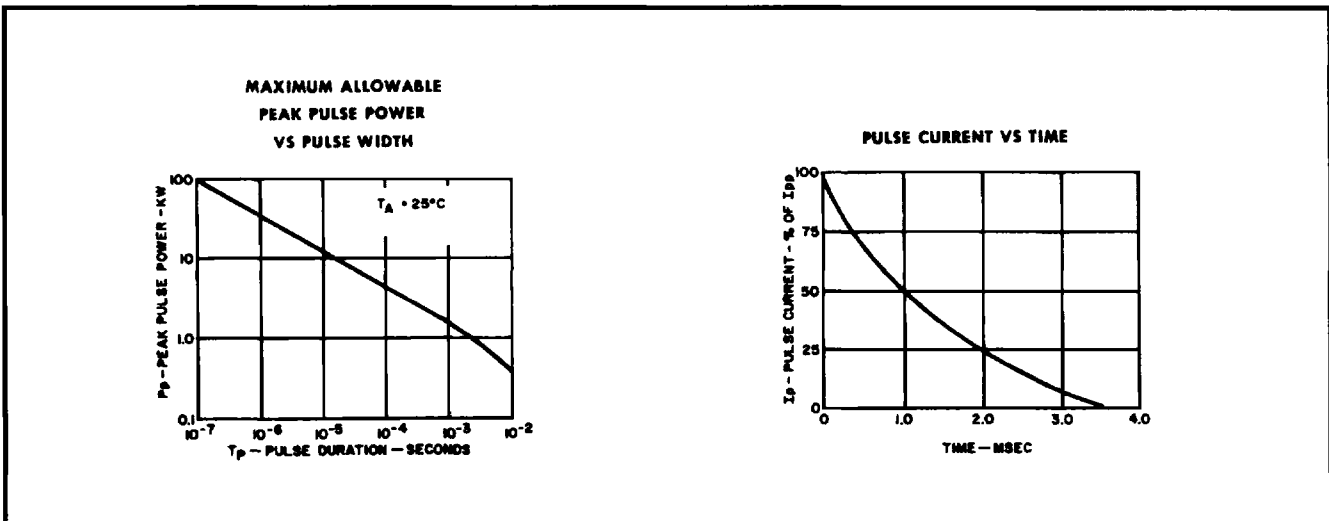
MAXIMUM RATINGS:

- 15,000 Watts of Peak Pulse Power Dissipation $T_A = @ 25^\circ C$
- Steady State Power Dissipation: 1.0 watts @ $T_L = 75^\circ C$, Lead Length = 3/8"
- Clamping (0 volts to BV min): $< 1 \times 10^{-12}$ seconds
- Forward Surge Rating : 200 amps, 1/20 second @ $25^\circ C$
- Forward Voltage Drop 3.5 V max @ 100 amps Peak
- Operating and Storage Temperature: $-65^\circ C$ to $+175^\circ C$



FEATURES:

- DO-13 PACKAGE - GLASS TO METAL HERMETICALLY SEALED
- POSITIVE TERMINAL MARKED WITH BAND
- STANDARD POLARITY - CATHODE TO CASE
- MATTE TIN PLATED
- CUSTOM DESIGNS AVAILABLE — CONSULT FACTORY



NE013 1/96

NEW ENGLAND SEMICONDUCTOR

**1N5629A
thru
1N5665A**

| Part Number* | Reverse Stand-off voltage V_R volts | Breakdown Voltage BV @ volts | I_T mA | Maximum clamping volt @ I_{PP} (1mSec) V_c Volts | Maximum Reverse Leakage $I_R @ V_R$ μA | Maximum Peak Pulse Current I_{PP} A | Max. Volt. Temp. Var of BV mV/ C |
|--------------|---------------------------------------|------------------------------|----------|--|---|---------------------------------------|----------------------------------|
| 1N5629A | 5.80 | 6.8 | 10 | 10.5 | 1000 | 143 | .057 |
| 1N5630A | 6.40 | 7.0 | 10 | 11.3 | 500 | 132 | .061 |
| 1N5631A | 7.02 | 8.2 | 10 | 12.1 | 200 | 124 | .065 |
| 1N5632A | 7.78 | 9.1 | 1 | 13.4 | 50 | 112 | .068 |
| 1N5633A | 8.55 | 10.0 | 1 | 14.5 | 10 | 103 | .073 |
| 1N5634A | 9.40 | 11.0 | 1 | 15.6 | 5 | 96 | .075 |
| 1N5635A | 10.2 | 12.0 | 1 | 16.7 | 5 | 90 | .078 |
| 1N5636A | 11.1 | 13.0 | 1 | 18.2 | 5 | 82 | .081 |
| 1N5637A | 12.8 | 15.0 | 1 | 21.2 | 5 | 71 | .084 |
| 1N5638A | 13.6 | 16.0 | 1 | 22.5 | 5 | 67 | .086 |
| 1N5639A | 15.3 | 18.0 | 1 | 25.2 | 5 | 59.5 | .088 |
| 1N5640A | 17.1 | 20.0 | 1 | 27.7 | 5 | 54 | .090 |
| 1N5641A | 18.8 | 22.0 | 1 | 30.6 | 5 | 49 | .092 |
| 1N5642A | 20.5 | 24.0 | 1 | 33.2 | 5 | 45 | .094 |
| 1N5643A | 23.1 | 27.0 | 1 | 37.5 | 5 | 40 | .096 |
| 1N5644A | 25.6 | 30.0 | 1 | 41.4 | 5 | 36 | .097 |
| 1N5645A | 28.2 | 33.0 | 1 | 45.7 | 5 | 33 | .098 |
| 1N5646A | 30.8 | 36.0 | 1 | 49.9 | 5 | 30 | .099 |
| 1N5647A | 33.3 | 39.0 | 1 | 53.9 | 5 | 28 | .100 |
| 1N5648A | 36.8 | 43.0 | 1 | 59.3 | 5 | 25.3 | .101 |
| 1N5649A | 40.2 | 47.0 | 1 | 64.8 | 5 | 23.2 | .101 |
| 1N5650A | 43.6 | 51.1 | 1 | 70.1 | 5 | 21.4 | .102 |
| 1N5651A | 47.8 | 56.0 | 1 | 77.0 | 5 | 19.5 | .103 |
| 1N5652A | 53.0 | 62.0 | 1 | 85.0 | 5 | 17.7 | .104 |
| 1N5653A | 58.1 | 68.0 | 1 | 92.0 | 5 | 16.3 | .104 |
| 1N5654A | 64.1 | 75.1 | 1 | 103.0 | 5 | 14.6 | .105 |
| 1N5655A | 70.1 | 82.0 | 1 | 113.0 | 5 | 13.3 | .105 |
| 1N5656A | 77.8 | 91.0 | 1 | 125.0 | 5 | 12.0 | .106 |
| 1N5657A | 85.5 | 100.0 | 1 | 137.0 | 5 | 11.0 | .106 |
| 1N5658A | 94.0 | 110.5 | 1 | 152.0 | 5 | 9.9 | .107 |
| 1N5659A | 102.0 | 120.0 | 1 | 165.0 | 5 | 9.1 | .107 |
| 1N5660A | 111.0 | 130.5 | 1 | 179.0 | 5 | 8.4 | .107 |
| 1N5661A | 128.0 | 150.5 | 1 | 207.0 | 5 | 7.2 | .108 |
| 1N5662A | 136.0 | 160.0 | 1 | 219.0 | 5 | 6.8 | .108 |
| 1N5663A | 145.0 | 170.5 | 1 | 234.0 | 5 | 6.4 | .108 |
| 1N5664A | 154.0 | 180.0 | 1 | 246.0 | 5 | 6.1 | .108 |
| 1N5665A | 171.0 | 200.0 | 1 | 274.0 | 5 | 5.5 | .108 |

*Suffix 'A' indicates $\pm 5\%$ tolerance

No Suffix indicates $\pm 10\%$ tolerance