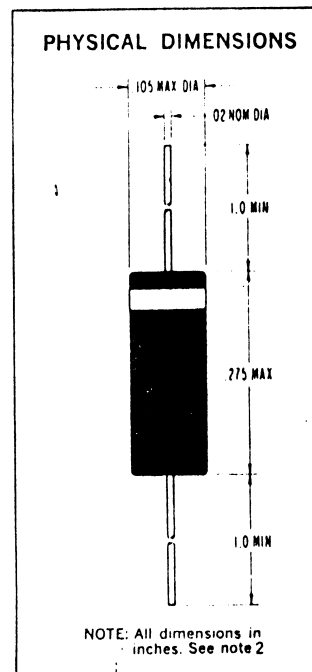


The 1N3595 is a high conductance extremely low leakage planar diode. Specified maximum values for voltage drop capacitance and leakage current mean flexibility in designing circuits which require large numbers of diodes. In those applications where reverse current is a critical design parameter, the inherent qualities of the Fairchild process eliminates the problem of leakage degradation.

The USN 1N3595 is supplied in accordance with MIL-S-19500/241A (NAVY). The electrical specifications, as listed in Table III, are identical with those listed in this Military Specification.

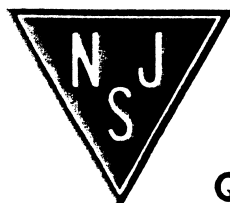


MAXIMUM RATINGS (25°C) (Note 1)

| | | |
|------------------------------|--|-----------------|
| V_{IV} | Working Inverse Voltage | 125 V |
| I_o | Average rectified current | 150 mA |
| I_F | Forward current steady state d.c. | 225 mA |
| i_r | Recurrent peak forward current | 450 mA |
| i_F (surge) | Peak forward surge current pulse width of 1 second | 500 mA |
| i_F (surge) | Peak forward surge current pulse width of 1 μSec. | 4000 mA |
| P | Power dissipation | 500 mW |
| 1/θ | Power derating factor | 4 mW/°C |
| T_A | Operating temperature | -65°C to +150°C |
| T_{stg} | Storage temperature, ambient | -65°C to +175°C |

ELECTRICAL SPECIFICATIONS (25°C unless otherwise noted)

| Symbol | Characteristic | Min. | Max. | Units | Test Conditions |
|-----------------|-------------------------|------|------|-------|-------------------------|
| V _{F1} | Forward Voltage | .83 | 1.00 | Vdc | I _F = 200 mA |
| V _{F2} | Forward Voltage | .79 | .92 | Vdc | I _F = 100 mA |
| V _{F3} | Forward Voltage | .74 | .88 | Vdc | I _F = 50 mA |
| V _{F4} | Forward Voltage | .65 | .80 | Vdc | I _F = 10 mA |
| V _{F5} | Forward Voltage | .60 | .75 | Vdc | I _F = 5 mA |
| V _{F6} | Forward Voltage | .52 | .68 | Vdc | I _F = 1 mA |
| I _{R1} | Reverse Current | | 1.0 | nA | V _R = 125 V |
| I _{R2} | Reverse Current (125°C) | | 300 | nA | V _R = 30 V |
| I _{R3} | Reverse Current (125°C) | | 500 | nA | V _R = 125 V |
| I _{R4} | Reverse Current (150°C) | | 3.0 | μA | V _R = 125 V |
| t _{rr} | Reverse Recovery Time | | 3.0 | μSec | See Table III |
| C | Capacitance [Note 3] | | 8.0 | pf | V _R = 0 V |
| BV | Breakdown Voltage | 150 | | Vdc | I _R = 100 μA |



Quality Semi-Conductors