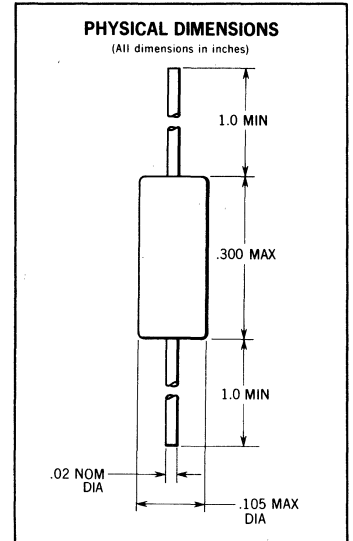


# 1N458

## LOW LEAKAGE PLANAR\* DIODE

### MAXIMUM RATINGS (25°C) [Note 1]

|               |   |                 |
|---------------|---|-----------------|
| WIV           | Working Inverse Voltage                             | 125 V           |
| $I_o$         | Average rectified current                           | 55 mA           |
| $i_F$         | Forward current steady state d.c.                   | 115 mA          |
| $I_f$         | Recurrent peak forward current                      | 175 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 $\mu$ s | 2 A             |
| P             | Power dissipation                                   | 400 mW          |
| $T_A$         | 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. | TYP. | MAX. | UNITS   | TEST CONDITIONS     |
|--------|----------------------------------|------|------|------|---------|---------------------|
| $V_F$  | Forward Voltage                  |      |      | 1.0  | Volts   | $I_F = 7.0$ mA      |
| $I_R$  | Reverse Current                  |      |      | 25   | nA      | $V_R = -125$ V      |
| $I_R$  | Reverse Current (150°C)          |      |      | 5.0  | $\mu$ A | $V_R = -125$ V      |
| BV     | Breakdown Voltage                | 150  |      |      | Volts   | $I_R = 100$ $\mu$ A |
| $C_o$  | Capacitance (f = 1 MHz) [Note 2] |      |      | 6.0  | pF      | $V_R = 0$ V         |

\* Planar is a patented Fairchild process.

### NOTES:

- (1) The maximum ratings are limiting values above which life or satisfactory performance may be impaired.
- (2) Capacitance as measured on Boonton Electronic Corporation Model No. 75A-S8 Capacitance Bridge or equivalent.