

**Microsemi Corp.**  
The diode experts



## IN4500 and IN4500-1

SANTA ANA, CA

For more information call:  
(714) 979-8220

### FEATURES

- SILICON HIGH FORWARD CONDUCTANCE SWITCHING DIODE
- VOIDLESS\* HERMETICALLY SEALED GLASS PACKAGE
- METALLURGICALLY BONDED (-1 TYPE)

TX, TXV TYPES AVAILABLE PER MIL-S-19500/403

\* EXCLUDES DO-35 DUMET CONSTRUCTION OPTION.

### MAXIMUM RATINGS

Operating Temperature: -65°C to +175°C

Storage Temperature: -65°C to +200°C

Surge Current: 4 Amps ( $t_p = 1\mu s$ )

Leakage Current: 100nA @ 75V, 25°C.

### ELECTRICAL CHARACTERISTICS

at 25°C unless otherwise specified.

| $V_{(BR)}$ | $V_{RWM}$<br>(working) | $I_o$<br>(note 1) | $I_f$ (surge)<br>(1 sec) | $I_f$ (surge)<br>(1 $\mu sec$ ) | $T_{OP}$    | $T_{STG}$   |
|------------|------------------------|-------------------|--------------------------|---------------------------------|-------------|-------------|
| Vdc        | V(pk)                  | mAdc              | A                        | A                               | °C          | °C          |
| 80         | 75                     | 300               | 0.5                      | 4.0                             | -65 to +175 | -65 to +200 |

| CAPACITANCE<br>$V_R = 0$ Volts<br>$V_{sig} = 50$ mVpp<br>$100kHz \leq f \leq 1$ MHz | $V_{f1}$<br>@ $I_f = 250\mu A$ dc | $V_{f2}$<br>@ $I_f = 1.0$ mA | $V_{f3}$<br>@ $I_f = 10$ mA | $V_{f4}$<br>@ $I_f = 20$ mA | $V_{f5}$<br>@ $I_f = 300$ mA<br>(pulse) | $t_{rr}$<br>@ $I_f = I_R$<br>10mAdc<br>$R_L = 100$ ohms |
|-------------------------------------------------------------------------------------|-----------------------------------|------------------------------|-----------------------------|-----------------------------|-----------------------------------------|---------------------------------------------------------|
| pF                                                                                  | Vdc                               | Vdc                          | Vdc                         | Vdc                         | Vdc                                     | ns                                                      |
| 4 max.                                                                              | .47 - .56                         | .52 - .60                    | .64 - .72                   | .67 - .77                   | 1.1 max.                                | 6.0 max.                                                |

OTE 1: DERATE 2.0 mAdc/°C For  $T_A$  Above 25°C.

### MILITARY SWITCHING DIODES

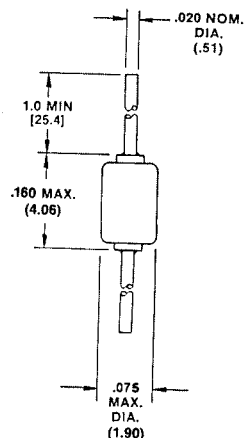


FIGURE 1  
PACKAGE DO-35

### MECHANICAL CHARACTERISTICS

CASE: Hermetically sealed hard glass case.

LEAD MATERIAL: Tinned copper clad steel.

MARKING: Body painted, alpha numeric.

POLARITY: Cathode band.