

# SILICON MULTIPLIER VARACTOR DIODE

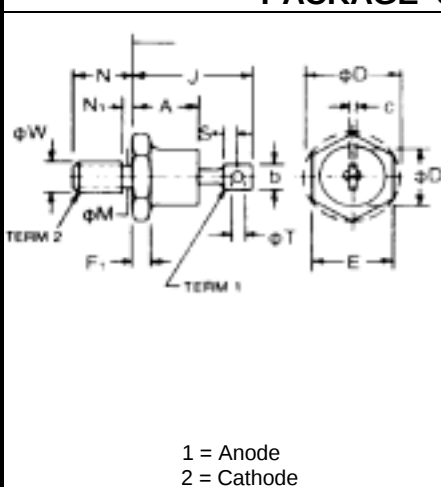
## DESCRIPTION:

The **1N4388** is a High Power Silicon Multiplier Varactor Diode.

## MAXIMUM RATINGS

|               |                                             |
|---------------|---------------------------------------------|
| $I_F$         | 200 mA                                      |
| $V_R$         | 100 V                                       |
| $P_{DISS}$    | 10 W @ $T_C = 25^\circ\text{C}$             |
| $T_J$         | $-65^\circ\text{C}$ to $+150^\circ\text{C}$ |
| $T_{STG}$     | $-65^\circ\text{C}$ to $+175^\circ\text{C}$ |
| $\theta_{JC}$ | $10^\circ\text{C/W}$                        |

## PACKAGE STYLE DO-4



| SYMBOL     | DIMENSIONS |        |             |        |
|------------|------------|--------|-------------|--------|
|            | INCHES     |        | MILLIMETERS |        |
|            | MIN.       | MAX.   | MIN.        | MAX.   |
| A          |            | 0.405  |             | 10.28  |
| b          |            | 0.250  |             | 6.35   |
| c          |            |        |             |        |
| $\phi D$   |            | 0.505  |             | 12.82  |
| $\phi D_1$ | 0.265      | 0.424  | 6.74        | 10.76  |
| E          | 0.423      | 0.438  | 10.75       | 11.12  |
| $F_1$      | 0.075      | 0.175  | 1.91        | 4.44   |
| J          | 0.600      | 0.800  | 15.24       | 20.32  |
| $\phi M$   | 0.163      | 0.189  | 4.15        | 4.80   |
| N          | 0.422      | 0.453  | 10.72       | 11.50  |
| $N_1$      |            | 0.078  |             | 1.98   |
| S          |            |        |             |        |
| $\phi T$   | 0.060      | 0.095  | 1.53        | 2.41   |
| $\phi W$   | 10-32      | UNF-2A | 10-32       | UNF-2A |

## CHARACTERISTICS $T_C = 25^\circ\text{C}$

| SYMBOL        | TEST CONDITIONS                                    | MINIMUM | TYPICAL | MAXIMUM | UNITS |
|---------------|----------------------------------------------------|---------|---------|---------|-------|
| $V_{BR}$      | $I_R = 10 \mu\text{A}$                             | 100     |         |         | V     |
| $C_T$         | $V_R = 6.0 \text{ V}$ $f = 1.0 \text{ MHz}$        |         |         | 20      | pF    |
| Q             | $V_R = 6.0 \text{ V}$ $f = 50 \text{ MHz}$         |         | 800     |         | ---   |
| $f_{in}$      |                                                    |         |         | 500     | MHz   |
| $P_{out(X3)}$ | $P_{IN} = 30 \text{ W}$ $F_{IN} = 150 \text{ MHz}$ | 15      |         | 20      | W     |