

SILICON MULTIPLIER VARACTOR DIODE

DESCRIPTION:

The **1N4396** is a High Power Silicon Multiplier Varactor Diode.

MAXIMUM RATINGS

| | |
|---------------|---------------------------------|
| I_F | 200 mA |
| V_R | 250 V |
| P_{DISS} | 20 W @ $T_C = 25^\circ C$ |
| T_J | $-65^\circ C$ to $+150^\circ C$ |
| T_{STG} | $-65^\circ C$ to $+175^\circ C$ |
| θ_{JC} | 5.0 $^\circ C/W$ |

PACKAGE STYLE DO-4

| SYMBOL | DIMENSIONS | | | |
|------------|------------|--------|-------------|--------|
| | INCHES | | MILLIMETERS | |
| | MIN. | MAX. | MIN. | MAX. |
| A | | 0.405 | | 10.28 |
| b | | 0.250 | | 6.35 |
| c | | | | |
| ϕD | | 0.505 | | 12.82 |
| ϕD_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 |
| ϕM | 0.163 | 0.189 | 4.15 | 4.80 |
| N | 0.422 | 0.453 | 10.72 | 11.50 |
| N_1 | | 0.078 | | 1.98 |
| S | | | | |
| ϕT | 0.060 | 0.095 | 1.53 | 2.41 |
| ϕW | 10-32 | UNF-2A | 10-32 | UNF-2A |

1 = Anode
2 = Cathode

CHARACTERISTICS $T_C = 25^\circ C$

| SYMBOL | TEST CONDITIONS | MINIMUM | TYPICAL | MAXIMUM | UNITS |
|---------------|------------------------------------|---------|---------|---------|-------|
| V_{BR} | $I_R = 10 \mu A$ | 250 | | | V |
| C_T | $V_R = 6.0 V$ $f = 1.0 MHz$ | 20 | | 50 | pF |
| R_S | $V_R = 6.0 V$ $f = 50 MHz$ | | 0.7 | | Ohms |
| $P_{OUT(X3)}$ | $P_{IN} = 30 W$ $F_{IN} = 150 MHz$ | 15 | | | W |