

# NPN SILICON RF POWER TRANSISTOR

**DESCRIPTION:**

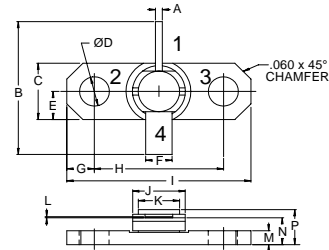
The **ASI 4001** is Designed for General Purpose Class C Power Amplifier Applications up to 4200 MHz.

**FEATURES:**

- $P_G = 5$  dB min. at 1.0 W / 4,000 MHz
- Hermetic Microstrip Package
- **Omnigold™** Metalization System

**MAXIMUM RATINGS**

|               |                                 |
|---------------|---------------------------------|
| $I_C$         | 0.25 A                          |
| $V_{CC}$      | 30 V                            |
| $P_{DISS}$    | 7.0 W @ $T_C = 25^\circ C$      |
| $T_J$         | $-65^\circ C$ to $+200^\circ C$ |
| $T_{STG}$     | $-65^\circ C$ to $+200^\circ C$ |
| $\theta_{JC}$ | 25 $^\circ C/W$                 |

**PACKAGE STYLE .250 2L FLG**


| DIM | MINIMUM<br>inches / mm | MAXIMUM<br>inches / mm |
|-----|------------------------|------------------------|
| A   | .028 / 0.71            | .032 / 0.81            |
| B   | .740 / 18.80           |                        |
| C   | .245 / 6.22            | .255 / 6.48            |
| D   | .128 / 3.25            | .132 / 3.35            |
| E   | .125 / 3.18            |                        |
| F   | .110 / 2.79            | .117 / 2.97            |
| G   | .117 / 2.97            |                        |
| H   | .560 / 14.22           | .570 / 14.48           |
| I   | .790 / 20.07           | .810 / 20.57           |
| J   | .225 / 5.72            | .235 / 5.97            |
| K   | .165 / 4.19            | .185 / 4.70            |
| L   | .003 / 0.08            | .007 / 0.18            |
| M   | .058 / 1.47            | .068 / 1.73            |
| N   | .119 / 3.02            | .135 / 3.43            |
| P   | .149 / 3.78            | .187 / 4.75            |

1 = Collector    2&3 = Base    3 = Emitter

**ORDER CODE: ASI10542**

**CHARACTERISTICS**  $T_C = 25^\circ C$ 

| SYMBOL            | TEST CONDITIONS                                 | MINIMUM   | TYPICAL | MAXIMUM | UNITS   |
|-------------------|---|-----------|---------|---------|---------|
| $BV_{CBO}$        | $I_C = 1.0$ mA                                  | 45        |         |         | V       |
| $BV_{CER}$        | $I_C = 5.0$ mA $R_{BE} = 10 \Omega$             | 45        |         |         | V       |
| $BV_{EBO}$        | $I_E = 10$ mA                                   | 3.5       |         |         | V       |
| $I_{CBO}$         | $V_{CB} = 28$ V                                 |           |         | 0.5     | mA      |
| $h_{FE}$          | $V_{CE} = 5.0$ V $I_C = 100$ mA                 | 15        |         | 120     | ---     |
| $C_{OB}$          | $V_{CB} = 28$ V $f = 1.0$ MHz                   |           |         | 3.5     | pF      |
| $P_G$<br>$\eta_C$ | $V_{CC} = 28$ V $P_{OUT} = 1.0$ W $f = 4.0$ GHz | 5.0<br>25 |         |         | dB<br>% |