

# NPN SILICON RF POWER TRANSISTOR

**DESCRIPTION:**

The **ASI 3000** is Designed for General Purpose Class C Power Amplifier Applications up to 3500 MHz.

**FEATURES:**

- $P_G = 7$  dB min. at 0.5 W / 3,000 MHz
- Hermetic Microstrip Package
- **Omnigold™** Metalization System

**MAXIMUM RATINGS**

|               |                                 |
|---------------|---------------------------------|
| $I_C$         | 0.1 A                           |
| $V_{CC}$      | 30 V                            |
| $P_{DISS}$    | 2.5 W @ $T_C = 25^\circ C$      |
| $T_J$         | $-65^\circ C$ to $+200^\circ C$ |
| $T_{STG}$     | $-65^\circ C$ to $+200^\circ C$ |
| $\theta_{JC}$ | $45^\circ C/W$                  |

**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            |

**ORDER CODE: ASI10537**

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

| SYMBOL     | TEST CONDITIONS                                 | MINIMUM | TYPICAL | MAXIMUM | UNITS |
|------------|---|---------|---------|---------|-------|
| $BV_{CBO}$ | $I_C = 1$ mA                                    | 50      |         |         | V     |
| $BV_{CER}$ | $I_C = 5$ mA $R_{BE} = 10 \Omega$               | 50      |         |         | V     |
| $BV_{EBO}$ | $I_E = 1$ mA                                    | 3.5     |         |         | V     |
| $I_{CBO}$  | $V_{CE} = 28$ V                                 |         |         | 250     | mA    |
| $h_{FE}$   | $V_{CE} = 5.0$ V $I_C = 50$ mA                  | 15      |         | 120     | ---   |
| $C_{OB}$   | $V_{CB} = 28$ V $f = 1.0$ MHz                   |         |         | 2.5     | pF    |
| $P_G$      | $V_{CC} = 28$ V $P_{OUT} = 0.5$ W $f = 3.0$ GHz | 7.0     |         |         | dB    |
| $\eta_C$   |   | 30      |         |         | %     |