

# NPN SILICON RF POWER TRANSISTOR

**DESCRIPTION:**

The **ASI CBSL1** is Designed for UHF Class A Amplifier Applications in Cellular Base Station Equipment.

**FEATURES:**

- $P_g = 10$  dB min. @ 960 MHz
- $P_{1dB} = 1.0$  Watts min. at 960 MHz
- **Omnigold™** Metalization System

**MAXIMUM RATINGS**

|               |   |
|---------------|---|
| $I_C$         | 0.25 A                                      |
| $V_{CBO}$     | 40 V  |
| $V_{CEO}$     | 28 V  |
| $V_{EBO}$     | 3.5 V                                       |
| $P_{DISS}$    | 7.0 W @ $T_C = 25^\circ\text{C}$            |
| $T_J$         | $-65^\circ\text{C}$ to $+200^\circ\text{C}$ |
| $T_{STG}$     | $-65^\circ\text{C}$ to $+150^\circ\text{C}$ |
| $\theta_{JA}$ | $25^\circ\text{C/W}$                        |

**PACKAGE STYLE .280 4L STUD**

| DIM | MINIMUM<br>inches / mm | MAXIMUM<br>inches / mm |
|-----|------------------------|------------------------|
| A   | 1.010 / 25.65          | 1.055 / 26.80          |
| B   | .220 / 5.59            | .230 / 5.84            |
| C   | .270 / 6.86            | .285 / 7.24            |
| D   | .003 / 0.08            | .007 / 0.18            |
| E   | .117 / 2.97            | .137 / 3.48            |
| F   | .572 / 14.53           |                        |
| G   | .130 / 3.30            |                        |
| H   | .245 / 6.22            | .255 / 6.48            |
| I   | .640 / 16.26           |                        |
| J   | .175 / 4.45            | .217 / 5.51            |
| K   | .275 / 6.99            | .285 / 7.24            |

**ORDER CODE: ASI10577**

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

| SYMBOL             | TEST CONDITIONS                                 | MINIMUM   | TYPICAL | MAXIMUM | UNITS         |
|--------------------|---|-----------|---------|---------|---------------|
| $BV_{CBO}$         | $I_C = 1$ mA                                    | 40        |         |         | V             |
| $BV_{CEO}$         | $I_C = 1$ mA                                    | 25        |         |         | V             |
| $BV_{EBO}$         | $I_E = 1$ mA                                    | 3.5       |         |         | V             |
| $I_{CBO}$          | $V_{CB} = 24$ V                                 |           |         | 500     | $\mu\text{A}$ |
| $h_{FE}$           | $V_{CE} = 5.0$ V $I_C = 100$ mA                 | 20        |         | 120     | ---           |
| $C_{OB}$           | $V_{CB} = 28$ V $f = 1.0$ MHz                   |           |         | 5.0     | pF            |
| $P_G$<br>$P_{1dB}$ | $V_{CC} = 24$ V $I_{CQ} = 125$ mA $f = 960$ MHz | 10<br>1.0 |         |         | dB<br>W       |