



**BLY90**

# NPN SILICON RF POWER TRANSISTOR

## DESCRIPTION:

The **ASI BLY90** is Designed for Class A,B and C, 12.5 V High Band Applications up to 175 MHz.

## FEATURES:

- Common Emitter
- $P_G = 5.0$  dB at 50 W/175 MHz
- **Omnigold™** Metalization System

## MAXIMUM RATINGS

|               |                       |
|---------------|-----------------------|
| $I_C$         | 8.0 A                 |
| $V_{CBO}$     | 36 V                  |
| $V_{CEO}$     | 18 V                  |
| $V_{EBO}$     | 4.0 V                 |
| $P_{DISS}$    | 130 W @ $T_C = 25$ °C |
| $T_J$         | -65 °C to +200 °C     |
| $T_{STG}$     | -65 °C to +150 °C     |
| $\theta_{JC}$ | 1.35 °C/W             |

**PACKAGE STYLE .380 4L STUD**

| DIM | MINIMUM<br>inches / mm | MAXIMUM<br>inches / mm |
|-----|------------------------|------------------------|
| A   | .220 / 5.59            | .230 / 5.84            |
| B   | .980 / 24.89           |                        |
| C   | .370 / 9.40            | .385 / 9.78            |
| D   | .004 / 0.10            | .007 / 0.18            |
| E   | .320 / 8.13            | .330 / 8.38            |
| F   | .100 / 2.54            | .130 / 3.30            |
| G   | .450 / 11.43           | .490 / 12.45           |
| H   | .090 / 2.29            | .100 / 2.54            |
| I   | .155 / 3.94            | .175 / 4.45            |
| J   |                        | .750 / 19.05           |

## CHARACTERISTICS $T_C = 25$ °C

| SYMBOL     | TEST CONDITIONS                                  | MINIMUM | TYPICAL | MAXIMUM | UNITS |
|------------|--|---------|---------|---------|-------|
| $BV_{CBO}$ | $I_C = 100$ mA                                   | 36      |         |         | V     |
| $BV_{CEO}$ | $I_C = 100$ mA                                   | 18      |         |         | V     |
| $BV_{EBO}$ | $I_E = 25$ mA                                    | 4.0     |         |         | V     |
| $h_{FE}$   | $V_{CE} = 5.0$ V $I_C = 1.0$ A                   | 10      |         | 200     | ---   |
| $C_c$      | $V_{CB} = 15$ V $f = 1.0$ MHz                    |         | 130     | 160     | pF    |
| $f_T$      | $V_{CE} = 10$ V $I_C = 6.0$ A                    |         | 550     |         | MHz   |
| $G_P$      | $V_{CC} = 12.5$ V $P_{OUT} = 50$ W $f = 175$ MHz | 5.0     |         |         | dB    |
| $\eta_c$   |  | 75      |         |         | %     |

