

# NPN SILICON RF POWER TRANSISTOR

**DESCRIPTION:**

The **ASI HF10-12F** is Designed for broadband operation in commercial and amateur communication equipment up to 30 MHz.

**FEATURES:**

- $P_G = 15$  dB min. at 10 W/30 MHz
- $IMD_3 = -30$  dBc max. at 10 W(PEP)
- **Omnigold™** Metalization System

**MAXIMUM RATINGS**

|               |                      |
|---------------|----------------------|
| $I_C$         | 4.5 A                |
| $V_{CBO}$     | 36 V                 |
| $V_{CEO}$     | 18 V                 |
| $V_{EBO}$     | 4.0 V                |
| $P_{DISS}$    | 40 W @ $T_C = 25$ °C |
| $T_J$         | -65 °C to +200 °C    |
| $T_{STG}$     | -65 °C to +150 °C    |
| $\theta_{JC}$ | 4.4 °C/W             |

**PACKAGE STYLE .380 4L FLG**

| DIM | MINIMUM<br>inches / mm | MAXIMUM<br>inches / mm |
|-----|------------------------|------------------------|
| A   | .220 / 5.59            | .230 / 5.84            |
| B   | .785 / 19.94           |                        |
| C   | .720 / 18.29           | .730 / 18.54           |
| D   | .970 / 24.64           | .980 / 24.89           |
| E   |                        | .385 / 9.78            |
| F   | .004 / 0.10            | .006 / 0.15            |
| G   | .085 / 2.16            | .105 / 2.67            |
| H   | .160 / 4.06            | .180 / 4.57            |
| I   |                        | .280 / 7.11            |
| J   | .240 / 6.10            | .255 / 6.48            |

**ORDER CODE: ASI10592**

**CHARACTERISTICS**  $T_C = 25$  °C

| SYMBOL              | TEST CONDITIONS  | MINIMUM | TYPICAL | MAXIMUM | UNITS    |
|---------------------|--|---------|---------|---------|----------|
| $BV_{CBO}$          | $I_C = 50$ mA  | 36      |         |         | V        |
| $BV_{CES}$          | $I_C = 50$ mA  | 36      |         |         | V        |
| $BV_{CEO}$          | $I_C = 50$ mA  | 18      |         |         | V        |
| $BV_{EBO}$          | $I_E = 5$ mA   | 4.0     |         |         | V        |
| $I_{CES}$           | $V_{CE} = 15$ V  |         |         | 5       | mA       |
| $h_{FE}$            | $V_{CE} = 5.0$ V $I_C = 1.0$ A   | 10      |         | 200     | ---      |
| $C_{ob}$            | $V_{CB} = 12.5$ V $f = 1.0$ MHz  |         | 100     |         | pF       |
| $G_{PE}$<br>$IMD_3$ | $V_{CC} = 12.5$ V $I_{CQ} = 25$ mA $f = 30$ MHz<br>$P_{OUT} = 10$ W(PEP) | 15      |         | -30     | dB<br>dB |