

# NPN SILICON RF POWER TRANSISTOR

**DESCRIPTION:**

The **ASI VHB25-12F** is Designed for Class C, 12.5 V High Band Applications up to 175 MHz.

**FEATURES:**

- Common Emitter
- $P_G = 10$  dB at 25 W/175 MHz
- **Omnigold™** Metalization System

**MAXIMUM RATINGS**

|               |                      |
|---------------|----------------------|
| $I_C$         | 4.0 A                |
| $V_{CBO}$     | 36 V                 |
| $V_{CEO}$     | 18 V                 |
| $V_{EBO}$     | 4.0 V                |
| $P_{DISS}$    | 65 W @ $T_C = 25$ °C |
| $T_J$         | -65 °C to +200 °C    |
| $T_{STG}$     | -65 °C to +150 °C    |
| $\theta_{JC}$ | 3.5 °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: ASI10714**

**CHARACTERISTICS**  $T_C = 25$  °C

| SYMBOL            | TEST CONDITIONS                                  | MINIMUM | TYPICAL | MAXIMUM | UNITS   |
|-------------------|--------------------------------------------------|---------|---------|---------|---------|
| $BV_{CEO}$        | $I_C = 50$ mA                                    | 18      |         |         | V       |
| $BV_{CES}$        | $I_C = 15$ mA                                    | 36      |         |         | V       |
| $BV_{EBO}$        | $I_E = 5.0$ mA                                   | 4.0     |         |         | V       |
| $I_{CBO}$         | $V_{CB} = 15$ V                                  |         |         | 5.0     | mA      |
| $h_{FE}$          | $V_{CE} = 5.0$ V $I_C = 250$ mA                  | 20      |         | ---     | ---     |
| $C_{OB}$          | $V_{CB} = 12.5$ V $f = 1.0$ MHz                  |         |         | 110     | pF      |
| $P_G$<br>$\eta_c$ | $V_{CE} = 12.5$ V $P_{OUT} = 25$ W $f = 175$ MHz | 10      | 60      |         | dB<br>% |

This datasheet has been download from:

[www.datasheetcatalog.com](http://www.datasheetcatalog.com)

Datasheets for electronics components.