

NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

The **ASI VHB80-12** is Designed for
Class C, 12.5 V High Band
Applications up to 175 MHz.

FEATURES:

- Internal Input Matching Network
- $P_G = 7.0$ dB at 80 W/175 MHz
- **Omnigold™** Metalization System

MAXIMUM RATINGS

| | |
|---------------|----------------------------|
| I_C | 20 A |
| V_{CBO} | 36 V |
| V_{CEO} | 16 V |
| V_{CES} | 36 V |
| V_{EBO} | 4.0 V |
| P_{DISS} | 230 W @ $T_C = 25^\circ C$ |
| T_J | -65 °C to +200 °C |
| T_{STG} | -65 °C to +150 °C |
| θ_{JC} | 0.75 °C/W |

PACKAGE STYLE .500 6L FLG

| DIM | MINIMUM inches / mm | MAXIMUM inches / mm |
|-----|------------------------|------------------------|
| A | .150 / 3.43 | .160 / 4.06 |
| B | | .045 / 1.14 |
| C | .210 / 5.33 | .220 / 5.59 |
| D | .835 / 21.21 | .865 / 21.97 |
| E | .200 / 5.08 | .210 / 5.33 |
| F | .490 / 12.45 | .510 / 12.95 |
| G | .003 / 0.08 | .007 / 0.18 |
| H | | .125 / 3.18 |
| I | | .725 / 18.42 |
| J | .970 / 24.64 | .980 / 24.89 |
| K | .090 / 2.29 | .105 / 2.67 |
| L | .150 / 3.81 | .170 / 4.32 |
| M | | .285 / 7.24 |
| N | .120 / 3.05 | .135 / 3.43 |

ORDER CODE: ASI10718

CHARACTERISTICS $T_C = 25^\circ C$

| SYMBOL | TEST CONDITIONS | MINIMUM | TYPICAL | MAXIMUM | UNITS |
|-------------------|--|---------|---------|---------|---------|
| BV_{CBO} | $I_C = 50$ mA | 36 | | | V |
| BV_{CES} | $I_C = 100$ mA | 36 | | | V |
| BV_{CEO} | $I_C = 100$ mA | 18 | | | |
| BV_{EBO} | $I_E = 10$ mA | 4.0 | | | V |
| I_{CES} | $V_{CE} = 12.5$ V | | | 15 | mA |
| h_{FE} | $V_{CE} = 5.0$ V $I_C = 5.0$ A | 10 | | --- | --- |
| C_{OB} | $V_{CB} = 12.5$ V $f = 1.0$ MHz | | | 380 | pF |
| P_G η_c | $V_{CE} = 12.5$ V $P_{OUT} = 80$ W $f = 175$ MHz | 7.0 | 60 | | dB % |