

NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

The **ASI VLB40-12S** is a common Emitter transistor, designed for VHF FM amplifier operations in military, commercial and amateur communication equipment.

FEATURES:

- $P_G = 13$ dB min. at 40 W/50 MHz
- **Omnigold™** Metalization System

MAXIMUM RATINGS

| | |
|---------------|---------------------------------|
| I_C | 1.0 A |
| V_{CB0} | 65 V |
| V_{CEO} | 35 V |
| V_{CES} | 65 V |
| V_{EBO} | 4.0 V |
| P_{DISS} | 70 W @ $T_C = 25^\circ\text{C}$ |
| T_J | -65 °C to +200 °C |
| T_{STG} | -65 °C to +150 °C |
| θ_{JC} | 2.5 °C/W |

PACKAGE STYLE .380 4L STUD

| DIM | MINIMUM inches / mm | MAXIMUM 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 |

ORDER CODE: ASI10735

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

| SYMBOL | TEST CONDITIONS | MINIMUM | TYPICAL | MAXIMUM | UNITS |
|------------|---|---------|---------|---------|-------|
| BV_{CEO} | $I_C = 200$ mA | 35 | | | V |
| BV_{CES} | $I_C = 200$ mA | 65 | | | V |
| BV_{CBO} | $I_C = 200$ mA | 65 | | | V |
| BV_{EBO} | $I_E = 10$ mA | 4.0 | | | V |
| I_{CBO} | $V_{CB} = 30$ V | | | 1.0 | mA |
| h_{FE} | $V_{CE} = 5.0$ V $I_C = 200$ mA | 5.0 | | --- | --- |
| C_{OB} | $V_{CB} = 12.5$ V $f = 1.0$ MHz | | | 100 | pF |
| G_P | $V_{CC} = 12.5$ V $P_{OUT} = 40$ W $f = 50$ MHz | 13 | | | dB |
| η_C | | | 60 | | % |