

# NPN SILICON RF POWER TRANSISTOR

## DESCRIPTION:

The **ASI VMB10-12S** is Designed for

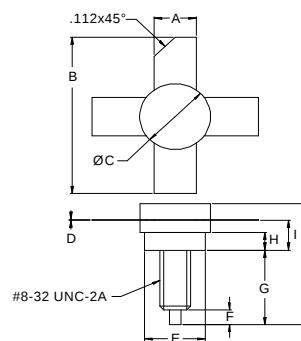
## FEATURES:

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- **Omnigold™** Metalization System

## MAXIMUM RATINGS

|                         |                               |
|-------------------------|-------------------------------|
| <b>I<sub>C</sub></b>    | 2.0 A                         |
| <b>V<sub>CBO</sub></b>  | 36 V                          |
| <b>V<sub>CEO</sub></b>  | 18 V                          |
| <b>V<sub>CES</sub></b>  | 36 V                          |
| <b>V<sub>EBO</sub></b>  | 4.0 V                         |
| <b>P<sub>DISS</sub></b> | 20 W @ T <sub>C</sub> = 25 °C |
| <b>T<sub>J</sub></b>    | -65 °C to +200 °C             |
| <b>T<sub>STG</sub></b>  | -65 °C to +150 °C             |
| <b>θ<sub>JC</sub></b>   | 5.0 °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           |

**ORDER CODE: ASI10742**

## CHARACTERISTICS T<sub>C</sub> = 25 °C

| SYMBOL                                       | TEST CONDITIONS                                                       | MINIMUM | TYPICAL | MAXIMUM | UNITS   |
|----------------------------------------------|-----------------------------------------------------------------------|---------|---------|---------|---------|
| <b>BV<sub>CEO</sub></b>                      | I <sub>C</sub> = 15 mA                                                | 18      |         |         | V       |
| <b>BV<sub>CES</sub></b>                      | I <sub>C</sub> = 50 mA                                                | 36      |         |         | V       |
| <b>BV<sub>EBO</sub></b>                      | I <sub>E</sub> = 2.5 mA                                               | 4.0     |         |         | V       |
| <b>I<sub>CBO</sub></b>                       | V <sub>CB</sub> = 12.5 V                                              |         |         | 1.0     | mA      |
| <b>h<sub>FE</sub></b>                        | V <sub>CE</sub> = 5.0 V      I <sub>C</sub> = 250 mA                  | 5.0     |         | 200     | ---     |
| <b>C<sub>OB</sub></b>                        | V <sub>CB</sub> = 12.5 V      f = 1.0 MHz                             |         |         | 65      | pF      |
| <b>P<sub>G</sub></b><br><b>η<sub>C</sub></b> | V <sub>CC</sub> = 12.5 V      P <sub>OUT</sub> = 10 W      f = 88 MHz | 13      | 60      |         | dB<br>% |