

# NPN SILICON RF POWER TRANSISTOR

**DESCRIPTION:**

The **ASI PT9701B** is a Common Emitter Device Designed for Class A , AB and C Amplifier Applications in the 225 - 400 MHz Military Communications Band.

**FEATURES INCLUDE:**

- Gold Metalization
- Emitter Ballasting
- High Gain

**MAXIMUM RATINGS**

|                         |                               |
|-------------------------|-------------------------------|
| <b>I<sub>C</sub></b>    | 1.25 A                        |
| <b>V<sub>CES</sub></b>  | 45 V                          |
| <b>P<sub>DISS</sub></b> | 14 W @ T <sub>C</sub> = 25 °C |
| <b>T<sub>J</sub></b>    | -55 °C to +200 °C             |
| <b>T<sub>STG</sub></b>  | -55 °C to +200 °C             |
| <b>q<sub>JC</sub></b>   | 12 °C/W                       |

**PACKAGE STYLE .280 4L STUD**

|   | MINIMUM<br>Inches/mm | MAXIMUM<br>Inches/mm |
|---|----------------------|----------------------|
| A | 1.010/25,65          | 1.055/26,80          |
| B | .220/5,59            | .230/5,84            |
| C | .270/6,86            | .285/7,24            |
| D | .003/0,08            | .007/0,18            |
| E | .117/2,97            | .137/3,48            |
| F | .5/2/14,53           |                      |
| G | .130/3,30            |                      |
| H | .275/6,99            | .285/7,24            |
| I | 640/16,26            |                      |
| J | .175/4,45            | .21/75,51            |

1 = COLLECTOR    2 = BASE  
3 & 4 = EMITTER

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

| SYMBOL                  | TEST CONDITIONS   | MINIMUM | TYPICAL | MAXIMUM | UNITS |
|-------------------------|---|---------|---------|---------|-------|
| <b>BV<sub>CEO</sub></b> | I <sub>C</sub> = 20 mA  | 25      |         |         | V     |
| <b>BV<sub>CES</sub></b> | I <sub>C</sub> = 10 mA  | 45      |         |         | V     |
| <b>BV<sub>EBO</sub></b> | I <sub>E</sub> = 1.0 mA   | 3.5     |         |         | V     |
| <b>h<sub>FE</sub></b>   | V <sub>CE</sub> = 5.0 V    I <sub>C</sub> = 200 mA                | 15      |         |         | ---   |
| <b>C<sub>ob</sub></b>   | V <sub>CB</sub> = 28 V    f = 1.0 MHz                             |         |         | 7.0     | pF    |
| <b>P<sub>G</sub></b>    | V <sub>CE</sub> = 28 V    P <sub>out</sub> = 5.0 W    f = 400 MHz | 10      | 12      |         | dB    |
| <b>h<sub>c</sub></b>    |   | 50      | 55      |         | %     |