

# NPN SILICON RF POWER TRANSISTOR

**DESCRIPTION:**

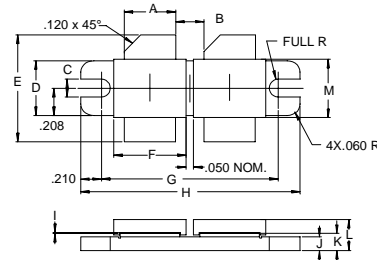
The **ASI SD1492** is a Common Emitter Device Designed for Class AB operation in UHF Amplifier Applications in Television Band IV & V Transmitters.

**FEATURES INCLUDE:**

- Gold Metalization
- Emitter Ballasting
- Internal Matching

**MAXIMUM RATINGS**

|                         |                                |
|-------------------------|--------------------------------|
| <b>I<sub>C</sub></b>    | 25 A                           |
| <b>V<sub>CB0</sub></b>  | 60 V                           |
| <b>P<sub>DISS</sub></b> | 310 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>   | 0.55 °C/W                      |

**PACKAGE STYLE .450 BAL FLG.(A)**


| DIM | MINIMUM<br>inches / mm | MAXIMUM<br>inches / mm |
|-----|------------------------|------------------------|
| A   | .373 / 9.47            | .385 / 9.78            |
| B   | .205 / 5.21            |                        |
| C   | .120 / 3.25            | .130 / 3.30            |
| D   | .411 / 10.44           | .421 / 10.69           |
| E   | .825 / 20.96           | .865 / 21.97           |
| F   | .525 / 13.34           | .535 / 13.59           |
| G   | 1.255 / 31.88          | 1.265 / 32.18          |
| H   | 1.675 / 42.55          | 1.685 / 42.80          |
| I   | .002 / 0.05            | .006 / 0.15            |
| J   | .095 / 2.41            | .105 / 2.67            |
| K   | .115 / 2.92            | .135 / 3.43            |
| L   | .250 / 6.35            |                        |
| M   | .445 / 11.30           | .457 / 11.61           |

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

| SYMBOL                  | TEST CONDITIONS (PER SIDE)  | MINIMUM | TYPICAL | MAXIMUM | UNITS      |
|-------------------------|---|---------|---------|---------|------------|
| <b>BV<sub>CEO</sub></b> | I <sub>C</sub> = 100 mA   | 30      |         |         | <b>V</b>   |
| <b>BV<sub>CB0</sub></b> | I <sub>C</sub> = 100 mA   | 60      |         |         | <b>V</b>   |
| <b>BV<sub>EBO</sub></b> | I <sub>E</sub> = 50 mA  | 3.0     |         |         | <b>V</b>   |
| <b>I<sub>CES</sub></b>  | V <sub>CE</sub> = 28 V  |         |         | 10      | <b>mA</b>  |
| <b>h<sub>FE</sub></b>   | V <sub>CE</sub> = 5.0 V      I <sub>C</sub> = 3.0 A                       | 15      |         | 70      | <b>---</b> |
| <b>C<sub>OB</sub></b>   | V <sub>CB</sub> = 28 V      f = 1.0 MHz                                   |         |         | 100     | <b>pF</b>  |
| <b>P<sub>OUT</sub></b>  | V <sub>CE</sub> = 28 V      I <sub>CQ</sub> = 2 X 500 mA      f = 860 MHz | 150     |         |         | <b>W</b>   |
| <b>G<sub>P</sub></b>    | V <sub>CE</sub> = 28 V      I <sub>CQ</sub> = 2 X 250 mA      f = 860 MHz | 6.5     |         |         | <b>dB</b>  |
| <b>n<sub>c</sub></b>    | P <sub>out</sub> = 150 W  | 45      |         |         | <b>dBc</b> |