

# NPN SILICON RF POWER TRANSISTOR

## DESCRIPTION:

The **ASI SD1530-7** is a Common Base Device Designed for DME, IFF and Tacan Pulse Applications.

## FEATURES INCLUDE:

- Gold Metalization
- Input Matching
- Broad Band Performance

## MAXIMUM RATINGS

|                         |                                |
|-------------------------|--------------------------------|
| <b>I<sub>C</sub></b>    | 2.5 A                          |
| <b>V<sub>CES</sub></b>  | 55 V                           |
| <b>P<sub>DISS</sub></b> | 125 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>   | 1.4 °C/W                       |

| PACKAGE STYLE 250 2L FLG (A)                     |                      |                            |
|--------------------------------------------------|----------------------|----------------------------|
| <p>1 = COLLECTOR    2 = EMITTER<br/>3 = BASE</p> |                      |                            |
|                                                  | MINIMUM<br>Inches/mm | MAXIMUM<br>Inches/mm       |
|                                                  | A                    | .095/.2,41    .105/.2,67   |
|                                                  | B                    | .245/.6,22    .255/.6,48   |
|                                                  | C                    | .750/.19,05                |
|                                                  | D                    | .245/.6,22    .258/.6,55   |
|                                                  | E                    | .555/.14,10    .570/.14,48 |
|                                                  | F                    | .795/.20,19    .805/.20,45 |
|                                                  | G                    | .003/.0,08    .007/.0,18   |
|                                                  | H                    | .055/.1,40    .065/.1,65   |
|                                                  | I                    | .075/.1,91    .100/.2,54   |
|                                                  | J                    | .150/.3,81    .180/.4,57   |

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

| SYMBOL                                       | TEST CONDITIONS                                                                                                       | MINIMUM | TYPICAL  | MAXIMUM | UNITS   |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------|----------|---------|---------|
| <b>BV<sub>CES</sub></b>                      | I <sub>C</sub> = 75 mA                                                                                                | 55      |          |         | V       |
| <b>BV<sub>EBO</sub></b>                      | I <sub>E</sub> = 25 mA                                                                                                | 4.0     |          |         | V       |
| <b>h<sub>FE</sub></b>                        | V <sub>CE</sub> = 5.0 V    I <sub>C</sub> = 300 mA                                                                    | 10      |          |         | ---     |
| <b>P<sub>G</sub></b><br><b>h<sub>c</sub></b> | V <sub>CC</sub> = 50 V    P <sub>out</sub> = 25 W    fo = 960 to 1215 MHz<br>PULSE WIDTH = 10 μS    DUTY CYCLE = 1.0% | 8.5     | 10<br>45 |         | dB<br>% |