

# NPN SILICON RF POWER TRANSISTOR

## DESCRIPTION:

The **ASI 2N5945** is Designed for FM Land Mobile Applications in the 400 to 960 MHz.

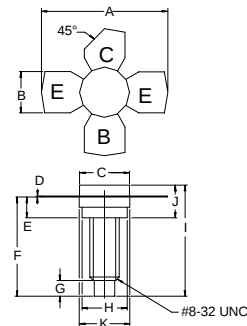
## FEATURES:

- Common Emitter
- $P_G = 9.0$  dB at 2.0 W/470 MHz
- *Omnigold*™ Metalization System

## MAXIMUM RATINGS

|               |                      |
|---------------|----------------------|
| $I_C$         | 0.8 A                |
| $V_{CBO}$     | 36 V                 |
| $V_{CEO}$     | 16 V                 |
| $V_{EBO}$     | 4.0 V                |
| $P_{DISS}$    | 15 W @ $T_C = 25$ °C |
| $T_J$         | -65 °C to +200 °C    |
| $T_{STG}$     | -65 °C to +150 °C    |
| $\theta_{JC}$ | 11.6 °C/W            |

## PACKAGE STYLE .280 4L STUD



| DIM | 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   | .572 / 14.53           |                        |
| G   | .130 / 3.30            |                        |
| H   | .245 / 6.22            | .255 / 6.48            |
| I   | .640 / 16.26           |                        |
| J   | .175 / 4.45            | .217 / 5.51            |
| K   | .275 / 6.99            | .285 / 7.24            |

## CHARACTERISTICS $T_C = 25$ °C

| SYMBOL     | TEST CONDITIONS                                   | MINIMUM | TYPICAL | MAXIMUM | UNITS |
|------------|---------------------------------------------------|---------|---------|---------|-------|
| $BV_{CEO}$ | $I_C = 100$ mA                                    | 16      |         |         | V     |
| $BV_{CES}$ | $I_C = 100$ mA                                    | 36      |         |         | V     |
| $BV_{EBO}$ | $I_E = 2.0$ mA                                    | 4.0     |         |         | V     |
| $I_{CBO}$  | $V_{CB} = 15$ V                                   |         |         | 1.0     | mA    |
| $h_{FE}$   | $V_{CE} = 5.0$ V $I_C = 200$ mA                   | 20      | ---     | ---     | ---   |
| $C_{ob}$   | $V_{CB} = 12.5$ V $f = 1.0$ MHz                   | ---     | 18      | 25      | pF    |
| $P_G$      | $V_{CC} = 12.5$ V $P_{OUT} = 4.0$ W $f = 470$ MHz | 9.0     | 10      |         | dB    |
| $\eta_c$   |                                                   | 60      |         |         | %     |