

# NPN SILICON RF POWER TRANSISTOR

## DESCRIPTION:

The **ASI MRF5175** is Designed for High Power Class C Amplifier in, 225 to 400 MHz Military Communication Equipment.

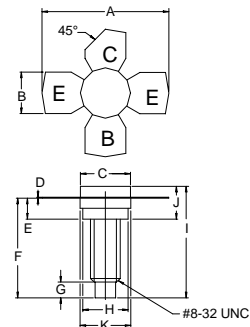
## FEATURES:

- Class C Operation
- $P_G = 11$  dB at 5.0 W/400 MHz
- **Omnigold™** Metalization System

## MAXIMUM RATINGS

|               |                                 |
|---------------|---------------------------------|
| $I_C$         | 1.0 A                           |
| $V_{CB}$      | 60 V                            |
| $V_{CE}$      | 33 V                            |
| $P_{DISS}$    | 12 W @ $T_C = 25^\circ C$       |
| $T_J$         | $-65^\circ C$ to $+200^\circ C$ |
| $T_{STG}$     | $-65^\circ C$ to $+150^\circ C$ |
| $\theta_{JC}$ | $12^\circ C/W$                  |

## 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 $T_C = 25^\circ C$

| SYMBOL     | TEST CONDITIONS                                 | MINIMUM | TYPICAL | MAXIMUM | UNITS |
|------------|---|---------|---------|---------|-------|
| $BV_{CEO}$ | $I_C = 30$ mA                                   | 33      |         |         | V     |
| $BV_{CES}$ | $I_C = 30$ mA                                   | 60      |         |         | V     |
| $BV_{EBO}$ | $I_E = 1.0$ mA                                  | 4.0     |         |         | V     |
| $I_{CBO}$  | $V_{CB} = 30$ V                                 |         |         | 0.5     | mA    |
| $h_{FE}$   | $V_{CE} = 5.0$ V $I_C = 250$ mA                 | 10      |         | 100     | ---   |
| $C_{ob}$   | $V_{CB} = 30$ V $f = 1.0$ MHz                   |         |         | 15      | pF    |
| $P_G$      | $V_{CC} = 28$ V $P_{OUT} = 5.0$ W $f = 400$ MHz | 11      |         |         | dB    |
| $\eta_D$   |   | 50      |         |         | %     |