

# NPN SILICON RF POWER TRANSISTOR

## DESCRIPTION:

The **UML25S** is Designed for Class C Amplifiers in 225 to 400 MHz Military Communication Equipment.

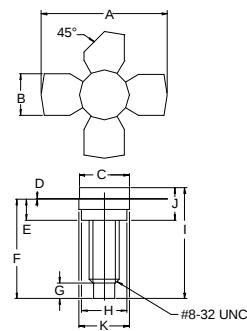
## FEATURES:

- $P_G = 9.5$  dB Typical at 400 MHz
- Economical .280" Stud Package
- **Omnigold™** Metalization System

## MAXIMUM RATINGS

|               |                                             |
|---------------|---------------------------------------------|
| $I_C$         | 3.0 A                                       |
| $V_{CBO}$     | 60 V                                        |
| $V_{CEO}$     | 30 V                                        |
| $V_{EBO}$     | 3.5 V                                       |
| $P_{DISS}$    | 45 W @ $T_C = 25^\circ\text{C}$             |
| $T_J$         | $-65^\circ\text{C}$ to $+200^\circ\text{C}$ |
| $T_{STG}$     | $-65^\circ\text{C}$ to $+150^\circ\text{C}$ |
| $\theta_{JC}$ | $3.0^\circ\text{C/W}$                       |

## 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            |

**ORDER CODE: ASI10694**

## CHARACTERISTICS $T_C = 25^\circ\text{C}$

| SYMBOL            | TEST CONDITIONS                                | MINIMUM | TYPICAL | MAXIMUM | UNITS   |
|-------------------|------------------------------------------------|---------|---------|---------|---------|
| $BV_{CES}$        | $I_C = 50$ mA                                  | 60      |         |         | V       |
| $BV_{CBO}$        | $I_C = 50$ mA                                  | 60      |         |         | V       |
| $BV_{EBO}$        | $I_E = 5$ mA                                   | 3.5     |         |         | V       |
| $I_{CBO}$         | $V_{CB} = 30$ V                                |         |         | 3.0     | mA      |
| $h_{FE}$          | $V_{CE} = 5.0$ V $I_C = 500$ mA                | 10      |         | 120     | ---     |
| $C_{OB}$          | $V_{CB} = 28$ V $f = 1.0$ MHz                  |         |         | 30      | pF      |
| $P_G$<br>$\eta_D$ | $V_{CC} = 28$ V $P_{OUT} = 25$ W $f = 400$ MHz | 9.0     | 60      |         | dB<br>% |