

# NPN SILICON RF POWER TRANSISTOR

## DESCRIPTION:

The **ASI ULBM2TE** is Designed for Class C, FM Land Mobile Applications up to 470 MHz.

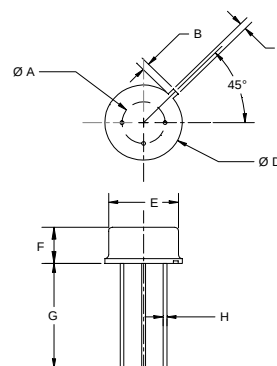
## FEATURES:

- Common Emitter
- $P_G = 8.0$  dB at 2.0 W/470 MHz
- **Omnigold™** Metalization System

## MAXIMUM RATINGS

|               |                                             |
|---------------|---------------------------------------------|
| $I_C$         | 0.40 A                                      |
| $V_{CBO}$     | 36 V                                        |
| $V_{CEO}$     | 16 V                                        |
| $V_{EBO}$     | 4.0 V                                       |
| $P_{DISS}$    | 5 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 $+150^\circ\text{C}$ |
| $\theta_{JC}$ | 35 $^\circ\text{C/W}$                       |

## PACKAGE STYLE TO-39GE



| DIM | MINIMUM<br>inches / mm | MAXIMUM<br>inches / mm |
|-----|------------------------|------------------------|
| A   | .200 / 5.080           |                        |
| B   | .029 / 0.740           | .045 / 1.140           |
| C   | .028 / 0.720           | .034 / 0.860           |
| D   | .355 / 9.020           | .370 / 9.370           |
| E   | .315 / 8.010           | .335 / 8.500           |
| F   | .165 / 4.200           | .180 / 4.570           |
| G   | .500 / 12.700          | .750 / 19.050          |
| H   | .016 / 0.410           | .020 / 0.508           |

**ORDER CODE: ASI10679**

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

| SYMBOL            | TEST CONDITIONS                                   | MINIMUM | TYPICAL | MAXIMUM | UNITS   |
|-------------------|---------------------------------------------------|---------|---------|---------|---------|
| $BV_{CEO}$        | $I_C = 50$ mA                                     | 16      |         |         | V       |
| $BV_{CES}$        | $I_C = 50$ mA $R_{BE} = 10 \Omega$                | 36      |         |         | V       |
| $BV_{EBO}$        | $I_E = 1.0$ mA                                    | 4.0     |         |         | V       |
| $I_{CBO}$         | $V_{CB} = 15$ V                                   |         |         | 1.0     | mA      |
| $h_{FE}$          | $V_{CE} = 5.0$ V $I_C = 50$ mA                    | 20      |         | 200     | ---     |
| $C_{ob}$          | $V_{CB} = 12.5$ V $f = 1.0$ MHz                   |         |         | 10      | pF      |
| $P_G$<br>$\eta_c$ | $V_{CE} = 12.5$ V $P_{OUT} = 2.0$ W $f = 470$ MHz | 8.0     | 55      |         | dB<br>% |