

# NPN SILICON RF POWER TRANSISTOR

## DESCRIPTION:

The **ASI HF75-28S** is Designed for

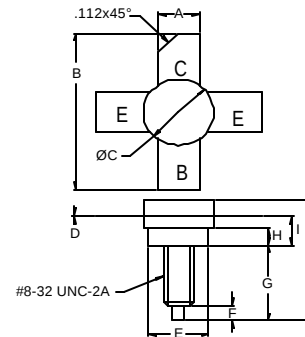
## FEATURES:

- $P_G = 18$  dB min. at 75 W/30 MHz
- $IMD_3 = -30$  dBc max. at 75 W<sub>(PEP)</sub>
- **Omnigold™** Metalization System

## MAXIMUM RATINGS

|            |                                 |
|------------|---------------------------------|
| $I_C$      | 10 A                            |
| $V_{CB}$   | 60 V                            |
| $V_{CE}$   | 35 V                            |
| $P_{DISS}$ | 140 W @ $T_C = 25^\circ C$      |
| $T_J$      | $-65^\circ C$ to $+200^\circ C$ |
| $T_{STG}$  | $-65^\circ C$ to $+150^\circ C$ |
| $q_{JC}$   | 1.05 $^\circ C/W$               |

## PACKAGE STYLE .380 STUD



| DIM | MINIMUM<br>inches / mm | MAXIMUM<br>inches / mm |
|-----|------------------------|------------------------|
| A   | .220 / 5.59            | .230 / 5.84            |
| B   | .980 / 24.89           |                        |
| C   | .370 / 9.40            | .385 / 9.78            |
| D   | .004 / 0.10            | .007 / 0.18            |
| E   | .320 / 8.13            | .330 / 8.38            |
| F   | .100 / 2.54            | .130 / 3.30            |
| G   | .450 / 11.43           | .490 / 12.45           |
| H   | .090 / 2.29            | .100 / 2.54            |
| I   | .155 / 3.94            | .175 / 4.45            |
| J   |                        | .750 / 19.05           |

**ORDER CODE: ASI10607**

## CHARACTERISTICS $T_C = 25^\circ C$

| SYMBOL     | TEST CONDITIONS                                                 | MINIMUM | TYPICAL | MAXIMUM | UNITS |
|------------|-----------------------------------------------------------------|---------|---------|---------|-------|
| $BV_{CEO}$ | $I_C = 50$ mA                                                   | 35      |         |         | V     |
| $BV_{CER}$ | $I_C = 50$ mA $R_{BE} = 10 \Omega$                              | 60      |         |         | V     |
| $BV_{EBO}$ | $I_E = 10$ mA                                                   | 4.0     |         |         | V     |
| $I_{CES}$  | $V_E = 28$ V                                                    |         |         | 5       | mA    |
| $h_{FE}$   | $V_{CE} = 5.0$ V $I_C = 1.0$ A                                  | 10      |         | 100     | ---   |
| $C_{ob}$   | $V_{CB} = 28$ V $f = 1.0$ MHz                                   |         |         | 80      | pF    |
| $G_{PE}$   | $V_{CE} = 25$ V $I_{CQ} = 3.2$ A $f = 225$ MHz                  | 13.5    | 14.5    |         | dB    |
| $IMD_3$    | $P_{REF} = 16$ W Vision = -8 dB Side Band = -16 dB Snd. = -7 dB |         |         | -55     | dBc   |