

# VHF POWER MOSFET

## N-Channel Enhancement Mode

**DESCRIPTION:**

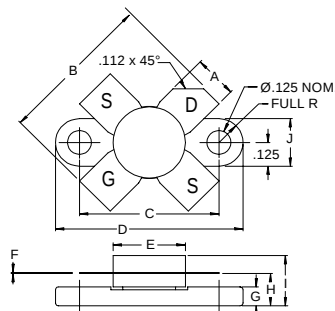
The **VFT30-28** is Designed for General Purpose Class AB Power Amplifier Applications up to 175 MHz.

**FEATURES:**

- $P_G = 14$  dB Typ. at 30 W /175MHz
- 10:1 Load VSWR Capability
- *Omnigold™* Metalization System

**MAXIMUM RATINGS**

|               |                                 |
|---------------|---------------------------------|
| $I_D$         | 2.5 A                           |
| $V_{(BR)DSS}$ | 65 V                            |
| $V_{DGR}$     | 65 V                            |
| $V_{GS}$      | $\pm 40$ V                      |
| $P_{DISS}$    | 97 W @ $T_C = 25^\circ C$       |
| $T_J$         | $-65^\circ C$ to $+200^\circ C$ |
| $T_{STG}$     | $-65^\circ C$ to $+150^\circ C$ |
| $\theta_{JC}$ | 1.8 $^\circ C/W$                |

**PACKAGE STYLE .380 4L FLG**


| DIM | MINIMUM<br>inches / mm | MAXIMUM<br>inches / mm |
|-----|------------------------|------------------------|
| A   | .220 / 5.59            | .230 / 5.84            |
| B   | .785 / 19.94           |                        |
| C   | .720 / 18.29           | .730 / 18.54           |
| D   | .970 / 24.64           | .980 / 24.89           |
| E   |                        | .385 / 9.78            |
| F   | .004 / 0.10            | .006 / 0.15            |
| G   | .085 / 2.16            | .105 / 2.67            |
| H   | .160 / 4.06            | .180 / 4.57            |
| I   |                        | .280 / 7.11            |
| J   | .240 / 6.10            | .255 / 6.48            |

**ORDER CODE: ASI10703**
**CHARACTERISTICS**  $T_C = 25^\circ C$ 

| SYMBOL                              | TEST CONDITIONS                  |                   |                  | MINIMUM  | TYPICAL         | MAXIMUM | UNITS   |
|-------------------------------------|----------------------------------|-------------------|------------------|----------|-----------------|---------|---------|
| $V_{(BR)DSS}$                       | $V_{GS} = 0$ V                   | $I_{DS} = 5.0$ mA |                  | 60       | ---             | ---     | V       |
| $I_{DSS}$                           | $V_{DS} = 28$ V                  | $V_{GS} = 0$ V    |                  | ---      | ---             | 2.0     | mA      |
| $I_{GSS}$                           | $V_{DS} = 0$ V                   | $V_{GS} = 40$ V   |                  | ---      | ---             | 1.0     | $\mu A$ |
| $V_{GS}$                            | $V_{DS} = 10$ V                  | $I_D = 25$ mA     |                  | 1.0      | ---             | 6.0     | V       |
| $G_{FS}$                            | $V_{DS} = 10$ V                  | $I_D = 250$ mA    |                  | 250      | ---             | ---     | mS      |
| $C_{iss}$<br>$C_{oss}$<br>$C_{rss}$ | $V_{GS} = 28$ V                  | $V_{DS} = 0$ V    | $F = 1.0$ MHz    |          | 22<br>17<br>3.0 |         | pF      |
| $P_G$<br>$\eta_D$                   | $V_{DD} = 28$ V<br>$f = 175$ MHz | $I_{DQ} = 25$ mA  | $P_{OUT} = 30$ W | 13<br>50 | 14<br>60        |         | dB<br>% |