

VHF POWER MOSFET

Silicon N-Channel Enhancement Mode

DESCRIPTION:

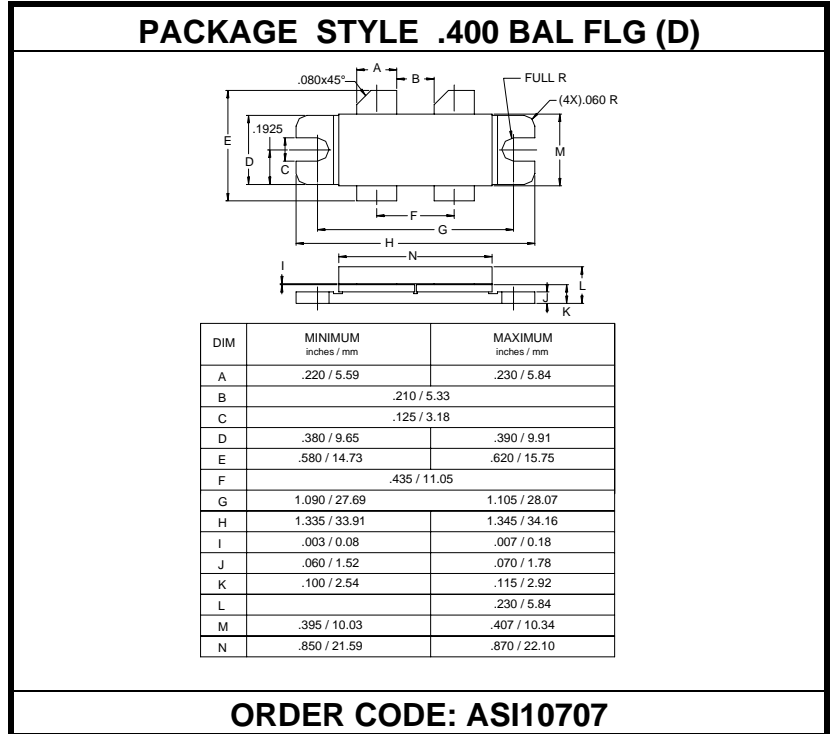
The **VFT300-28** is Designed for Wideband High Power VHF Amplifier Applications operating up to 250 MHz.

FEATURES:

- $P_G = 14$ dB Typical at 175 MHz
- $\eta_D = 55\%$ Typ. at $P_{OUT} = 300$ Watts
- **Omnigold™** Metalization System

MAXIMUM RATINGS

| | |
|---------------|-----------------------|
| I_D | 16 A |
| $V_{(BR)DSS}$ | 65 V |
| V_{DGR} | 65 V |
| V_{GS} | ± 40 V |
| P_{DISS} | 500 W @ $T_C = 25$ °C |
| T_J | -65 °C to +200 °C |
| T_{STG} | -65 °C to +150 °C |
| θ_{JC} | 0.35 °C/W |


CHARACTERISTICS $T_C = 25$ °C

| SYMBOL | TEST CONDITIONS | | | MINIMUM | TYPICAL | MAXIMUM | UNITS |
|-------------------------------------|----------------------------------|----------------------------|-------------------|----------|------------------|---------|---------|
| $V_{(BR)DSS}$ | $V_{GS} = 0$ V | $I_{DS} = 100$ mA | | 65 | | | V |
| I_{DSS} | $V_{DS} = 28$ V | $V_{GS} = 0$ V | | | | 5.0 | mA |
| I_{GSS} | $V_{DS} = 0$ V | $V_{GS} = 20$ V | | | | 1.0 | μ A |
| V_{GS} | $V_{DS} = 10$ V | $I_D = 100$ mA | | 1.0 | | 5.0 | V |
| V_{DS} | $V_{GS} = 10$ V | $I_D = 10$ A | | | | 1.5 | V |
| G_{FS} | $V_{DS} = 10$ V | $I_D = 5$ A | | 3500 | | | mS |
| C_{iss} C_{oss} C_{rss} | $V_{GS} = 28$ V | $V_{DS} = 0$ V | $F = 1.0$ MHz | | 375 188 26 | | pF |
| G_{PS} η_D | $V_{DD} = 28$ V $f = 175$ MHz | $I_{DQ} = 2 \times 250$ mA | $P_{OUT} = 300$ W | 12 50 | 14 55 | | dB % |