

VHF POWER MOSFET

N-Channel Enhancement Mode

DESCRIPTION:

The **VFT80-28** is Designed for General Purpose Class B Power Amplifier Applications up to 175 MHz.

FEATURES:

- $P_G = 10$ dB Typical at 175 MHz
- 10:1 Load VSWR Capability
- *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} | $1.5^\circ C/W$ |

PACKAGE STYLE .380 4L FLG

| DIM | MINIMUM inches / mm | MAXIMUM 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: ASI10705

CHARACTERISTICS $T_C = 25^\circ C$

| SYMBOL | TEST CONDITIONS | | | MINIMUM | TYPICAL | MAXIMUM | UNITS |
|-------------------------------------|--------------------------------------|------------------|-----------------------------------|--------------------------------|------------------|---------|---------|
| BV_{DSS} | $I_D = 100$ mA | | | 60 | | | 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 | mA |
| $V_{GS(th)}$ | $I_D = 50$ mA | $V_{DS} = 10$ V | | 1.0 | | 6.0 | V |
| g_{fs} | $I_D = 2$ A | $V_{DS} = 10$ V | | 1200 | | | mS |
| C_{iss} C_{oss} C_{rss} | $V_{DS} = 28$ V | $V_{GS} = 0$ V | $f = 1.0$ MHz | | 105 165 20 | | pF |
| P_G h_D | $V_{DD} = 28$ V | $I_{DQ} = 25$ mA | $P_{out} = 80$ W $f = 175$ MHz | 10 50 | 12 60 | | dB % |
| y | $V_{SWR} = 30:1$ AT ALL PHASE ANGLES | | | NO DEGRADATION IN OUTPUT POWER | | | |