

VHF POWER MOSFET

N-Channel Enhancement Mode

DESCRIPTION:

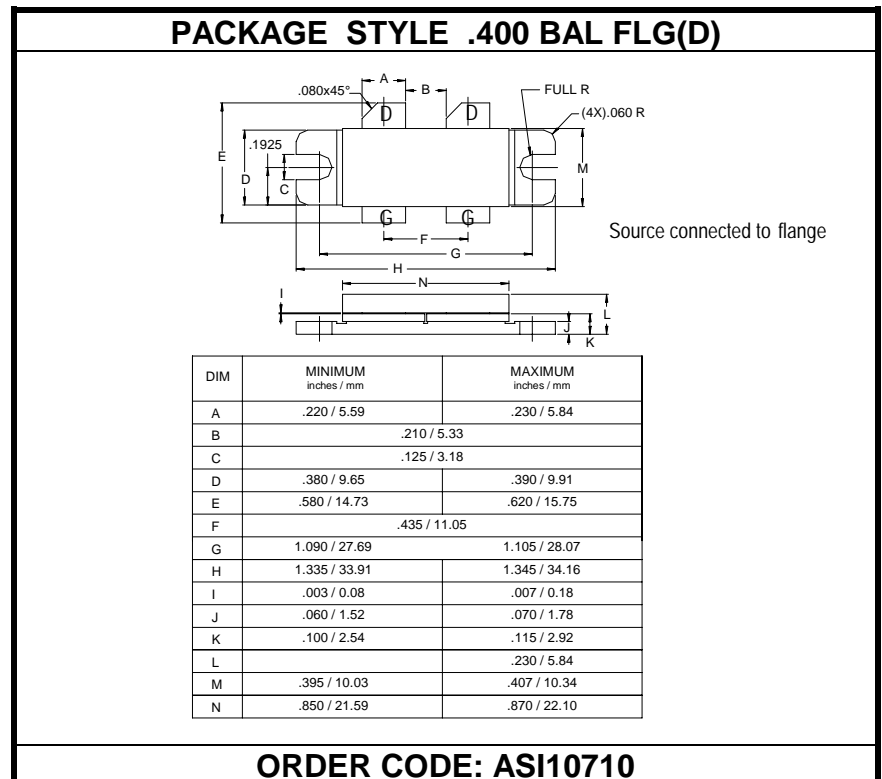
The **VFT300-50** is a gold metallized N-Channel Enhancement mode MOSFET intended for use in 50 Vdc large signal applications to 175 MHz.

FEATURES:

- $P_G = 15$ dB Typ. at 300W/ 175 MHz
- Common Base configuration
- Class-a or AB
- 50 V operation
- **Omnigold™** Metalization System

MAXIMUM RATINGS

I_D	40 A
V_{DSS}	125 V
V_{GS}	± 40 V
P_{DISS}	500 W @ $T_C = 25$ °C
T_J	-65 °C to +150 °C
T_{STG}	-65 °C to +200 °C
θ_{JC}	0.35 °C/W


CHARACTERISTICS $T_C = 25$ °C

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{DSS}	$I_D = 50$ mA	125			V
I_{DSS}	$V_{DS} = 50$ V $V_{GS} = 0$ V			5.0	mA
I_{GSS}	$V_{DS} = 0$ V $V_{GS} = 20$ V			1.0	μ A
$V_{GS(th)}$	$I_D = 100$ mA $V_{DS} = 10$ V	1.0		5.0	V
g_{fs}	$I_D = 5.0$ A $V_{DS} = 10$ V	3			mho
C_{iss} C_{oss} C_{rss}	$V_{DS} = 50$ V $V_{GS} = 0$ V $f = 1.0$ MHz		350 250 20		pF

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

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
P_G	$V_{DD} = 50\text{ V}$ $I_{DQ} = 500\text{ mA}$ $P_{out} = 300\text{ W}$	14	15		dB
η_D	$f = 175\text{ MHz}$	60	65		%

