

# VHF POWER MOSFET

## N-Channel Enhancement Mode

**DESCRIPTION:**

The **VFT30-50** is Designed for General Purpose Class B Power Amplifier Applications up to 250 MHz.

**FEATURES:**

- $P_G = 16$  dB Typ. at 30 W /175 MHz
- $h_D = 60\%$  Typ. at 30 W /175 MHz
- **Omnigold™** Metalization System

**MAXIMUM RATINGS**

$I_D$	6.0 A
$V_{(BR)DSS}$	120 V
$V_{DGR}$	120 V
$V_{GS}$	$\pm 40$ V
$P_{DISS}$	115 W @ $T_C = 25^\circ C$
$T_J$	$-65^\circ C$ to $+200^\circ C$
$T_{STG}$	$-65^\circ C$ to $+150^\circ C$
$q_{JC}$	1.52 $^\circ C/W$

**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: ASI10708**

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

SYMBOL	TEST CONDITIONS			MINIMUM	TYPICAL	MAXIMUM	UNITS
$V_{(BR)DSS}$	$V_{GS} = 0$ V	$I_{DS} = 10$ mA		125	---	---	V
$I_{DSS}$	$V_{GS} = 0$ V	$V_{DS} = 50$ V		---	---	1.0	mA
$I_{GSS}$	$V_{GS} = 20$ V	$V_{DS} = 0$ V		---	---	100	mA
$V_{GS}$	$V_{DS} = 10$ V	$I_D = 10$ mA		1.0	---	5.0	V
$G_{FS}$	$V_{GS} = 10$ V	$I_D = 2.5$ A		800	---	---	mS
$C_{iss}$ $C_{oss}$ $C_{rss}$	$V_{GS} = 50$ V	$V_{DS} = 0$ V	$F = 1.0$ MHz		115 30.0 6.5		pF
$P_G$ $h_D$	$V_{DD} = 50$ V $f = 175$ MHz	$I_{DQ} = 100$ mA	$P_{OUT} = 30$ W	15 50	16 60		dB %