

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}	± 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 %