

VHF POWER MOSFET

N-Channel Enhancement Mode

DESCRIPTION:

The **VFT150-50** is a N-Channel Enhancement Mode RF Power MOSFET Designed for AM/FM Power Amplifier Applications up to 175 MHz.

FEATURES:

- $P_G = 13.5$ dB Typical at 175 MHz
- 10:1 Load **VSWR** Capability
- **Omnigold™** Metalization System

MAXIMUM RATINGS

I_D	16 A
V_{DSS}	125 V
V_{GS}	± 30 V
P_{DISS}	300 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}	0.6 $^\circ C/W$

PACKAGE STYLE .500 4L FLG

DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.220 / 5.59	.230 / 5.84
B	.125 / 3.18	
C	.245 / 6.22	.255 / 6.48
D	.720 / 18.28	.730 / 18.54
E	.125 / 3.18	
F	.970 / 24.64	.980 / 24.89
G	.495 / 12.57	.505 / 12.83
H	.003 / 0.08	.007 / 0.18
I	.090 / 2.29	.110 / 2.79
J	.150 / 3.81	.175 / 4.45
K	.280 / 7.11	.280 / 7.11
L	.980 / 24.89	1.050 / 26.67

ORDER CODE: ASI10709

CHARACTERISTICS $T_C = 25^\circ C$

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	mA
$V_{GS(th)}$	$V_{DS} = 10$ V $I_D = 100$ mA	1.0		5.0	V
g_{fs}	$V_{DS} = 10$ V $I_D = 5$ A	3,000			mS
C_{iss} C_{oss} C_{rss}	$V_{DS} = 50$ V $V_{GS} = 0$ V $f = 1.0$ MHz		290 130 28		pF
P_G h_D	$V_{DD} = 50$ V $I_{DQ} = 250$ mA $f = 175$ MHz $P_{out} = 150$ W	13 45	13.5 55		dB %
y	$V_{SWR} = 10:1$ AT ALL PHASE ANGLES	NO DEGRADATION IN OUTPUT POWER			