

# 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
$V_{GS}$	$\pm 30$ 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	
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			