

# VHF POWER MOSFET

## N-Channel Enhancement Mode

**DESCRIPTION:**

The **VFT30-28** is a gold metallized N-Channel enhancement mode MOSFET, intended for use in 28VDC large signal applications up to 400MHz.

**FEATURES:**

- $P_G = 14$  dB Typ. at 30 W /175MHz
- **10:1 Load VSWR** Capability
- **Omnigold™** Metalization System

**MAXIMUM RATINGS**

$I_D$	5.0 A
$V_{(BR)DSS}$	65 V
$V_{DGR}$	65 V
$V_{GS}$	$\pm 40$ V
$P_{DISS}$	100 W @ $T_C = 25^\circ\text{C}$
$T_J$	$-65^\circ\text{C}$ to $+200^\circ\text{C}$
$T_{STG}$	$-65^\circ\text{C}$ to $+150^\circ\text{C}$
$\theta_{JC}$	1.75 $^\circ\text{C/W}$

**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: ASI10703**

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

SYMBOL	TEST CONDITIONS			MINIMUM	TYPICAL	MAXIMUM	UNITS
$V_{(BR)DSS}$	$V_{GS} = 0$ V	$I_{DS} = 10$ mA		60	---	---	V
$I_{DSS}$	$V_{DS} = 28$ V	$V_{GS} = 0$ V		---	---	4.0	mA
$I_{GSS}$	$V_{DS} = 0$ V	$V_{GS} = 20$ V		---	---	1.0	$\mu\text{A}$
$V_{GS}$	$V_{DS} = 10$ V	$I_D = 25$ mA		1.0	---	6.0	V
$G_{FS}$	$V_{DS} = 10$ V	$I_D = 500$ mA		0.5	---	---	mho
$C_{iss}$	$V_{DS} = 28$ V	$V_{GS} = 0$ V	$f = 1.0$ MHz		46		pF
$C_{oss}$					33		
$C_{rss}$					6.0		

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

SYMBOL	TEST CONDITIONS			MINIMUM	TYPICAL	MAXIMUM	UNITS
$P_G$	$V_{DD} = 28\text{ V}$	$I_{DQ} = 25\text{ mA}$	$P_{OUT} = 30\text{ W}$	13	14		<b>dB</b>
$\eta_D$	$P_{IN} = 1.5\text{ W}$		$f = 175\text{ MHz}$	50	60		<b>%</b>

**Power Out vs Power In**

