

RF MOSFET Power Transistor, 75W, 24V

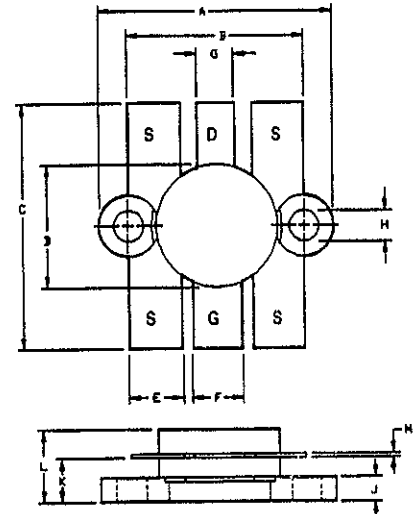
30 - 90 MHz

FH2114

V2.00

Features

- N-Channel Enhancement Mode Device
- Meets CECOM Drawing A3012711
- Designed for Frequency Hopping Systems
- 30-90 MHz
- Lower Capacitances for Broadband Operation
- Lower Noise Figure Than Bipolar Devices



Absolute Maximum Ratings at 25°C

Parameter	Symbol	Rating	Units
Drain-Source Voltage	V_{DS}	65	V
Gate-Source Voltage	V_{GS}	20	V
Drain-Source Current	I_{DS}	16	A
Power Dissipation	P_D	159	W
Junction Temperature	T_J	200	°C
Storage Temperature	T_{STG}	-55 to +150	°C
Thermal Resistance	θ_{JC}	1.1	°C/W

LETTER DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	24.38	25.15	.960	.990
B	18.29	18.54	.720	.730
C	21.36	21.74	.841	.856
D	12.60	12.85	.496	.506
E	5.33	5.59	.210	.220
F	5.08	5.33	.200	.210
G	3.81	4.06	.150	.160
H	3.10	3.15	.122	.125
J	2.51	2.67	.099	.105
K	4.06	4.57	.160	.180
L	6.68	7.49	.263	.295
M	.10	.15	.004	.006

Electrical Characteristics at 25°C

Parameter	Symbol	Min	Max	Units	Test Conditions
Drain-Source Breakdown Voltage	BV_{DSS}	65	-	V	$V_{GS}=0.0\text{ V}, I_{DS}=100.0\text{ mA}$
Drain-Source Leakage Current	I_{DSS}	-	2.0	mA	$V_{DS}=24.0\text{ V}, V_{GS}=0.0\text{ V}$
Gate-Source Leakage Current	I_{GSS}	-	4.0	μA	$V_{GS}=20.0\text{ V}, V_{DS}=0.0\text{ V}$
Gate Threshold Voltage	$V_{GS(TH)}$	2.0	7.2	V	$V_{DS}=27.0\text{ V}, I_{DS}=1000.0\text{ mA}$
Forward Transconductance	G_M	1.6	-	S	$V_{DS}=24.0\text{ V}, I_{DS}=1000.0\text{ mA}, \Delta V_{GS}=1.0\text{ V}, 80\text{ }\mu\text{s Pulse}$
Input Capacitance	C_{ISS}	-	210	pF	$V_{DS}=30.0\text{ V}, F=1.0\text{ MHz}$
Output Capacitance	C_{OSS}	-	160	pF	$V_{DS}=30.0\text{ V}, F=1.0\text{ MHz}$
Reverse Capacitance	C_{RSS}	-	25	pF	$V_{DS}=30.0\text{ V}, F=1.0\text{ MHz}$
Power Gain	G_P	13	-	dB	$V_{DD}=24.0\text{ V}, I_{DD}=1000\text{ mA}, P_{OUT}=75.0\text{ W}, F=88\text{ MHz}$
Drain Efficiency	η_D	65	-	%	$V_{DD}=24.0\text{ V}, I_{DD}=1000\text{ mA}, P_{OUT}=75.0\text{ W}, F=88\text{ MHz}$
Load Mismatch Tolerance	VSWR-T	-	30:1	-	$V_{DD}=24.0\text{ V}, I_{DD}=1000\text{ mA}, P_{OUT}=75.0\text{ W}, F=88\text{ MHz}$

Specifications Subject to Change Without Notice.

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