

# RF MOSFET Power Transistor, 8W, 12V

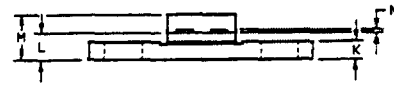
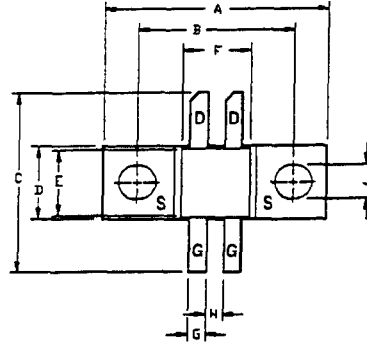
## 30 - 90 MHz

# FH2164

V2.00

### Features

- N-Channel Enhancement Mode Device
- Meets CECOM Drawing A3012715
- 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	$I_{DS}$	4*	A
Power Dissipation	$P_D$	61*	W
Junction Temperature	$T_J$	200	°C
Storage Temperature	$T_{STG}$	-55 to +150	°C
Thermal Resistance	$\theta_{JC}$	1.5	°C/W

LETTER DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	20.70	20.96	.815	.825
B	14.35	14.61	.565	.575
C	15.67	17.45	.617	.687
D	6.27	6.53	.247	.257
E	6.22	6.48	.245	.255
F	6.22	6.48	.245	.255
G	1.40	1.65	.055	.065
H	1.40	1.65	.055	.065
J	2.92	3.18	.115	.125
K	1.40	1.65	.055	.065
L	1.96	2.46	.077	.097
M	3.61	4.37	.142	.172
N	.08	.13	.003	.005

### Electrical Characteristics at 25°C

Parameter	Symbol	Min	Max	Units	Test Conditions
Drain-Source Breakdown Voltage	$BV_{DSS}$	65	-	V	$V_{GS}=0.0\text{ V}, I_{DS}=5.0\text{ mA}^*$
Drain-Source Leakage Current	$I_{DSS}$	-	1.0	mA	$V_{DS}=28.0\text{ V}, V_{GS}=0.0\text{ V}^*$
Gate-Source Leakage Current	$I_{GSS}$	-	1.0	$\mu\text{A}$	$V_{GS}=20.0\text{ V}, V_{DS}=0.0\text{ V}^*$
Gate Threshold Voltage	$V_{GS(TH)}$	2.0	6.0	V	$V_{DS}=10.0\text{ V}, I_{DS}=100.0\text{ mA}^*$
Forward Transconductance	$G_M$	500	-	mS	$V_{DS}=28.0\text{ V}, I_{DS}=1000.0\text{ mA}, \Delta V_{GS}=1.0\text{ V}, 80\text{ }\mu\text{s Pulse}^*$
Input Capacitance	$C_{ISS}$	-	45	pF	$V_{DS}=28.0\text{ V}, F=1.0\text{ MHz}^*$
Output Capacitance	$C_{OSS}$	-	40	pF	$V_{DS}=28.0\text{ V}, F=1.0\text{ MHz}^*$
Reverse Capacitance	$C_{RSS}$	-	8	pF	$V_{DS}=28.0\text{ V}, F=1.0\text{ MHz}^*$
Power Gain	$G_P$	13	-	dB	$V_{DD}=12.0\text{ V}, I_{DQ}=600\text{ mA}, P_{OUT}=8.0\text{ W}, F=88\text{ MHz}$
Drain Efficiency	$\eta_D$	55	-	%	$V_{DD}=12.0\text{ V}, I_{DQ}=600\text{ mA}, P_{OUT}=8.0\text{ W}, F=88\text{ MHz}$
Load Mismatch Tolerance	VSWR-T	-	20:1	-	$V_{DD}=12.0\text{ V}, I_{DQ}=600\text{ mA}, P_{OUT}=8.0\text{ W}, F=88\text{ MHz}$

\* Per side

Specifications Subject to Change Without Notice.

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