FH2164

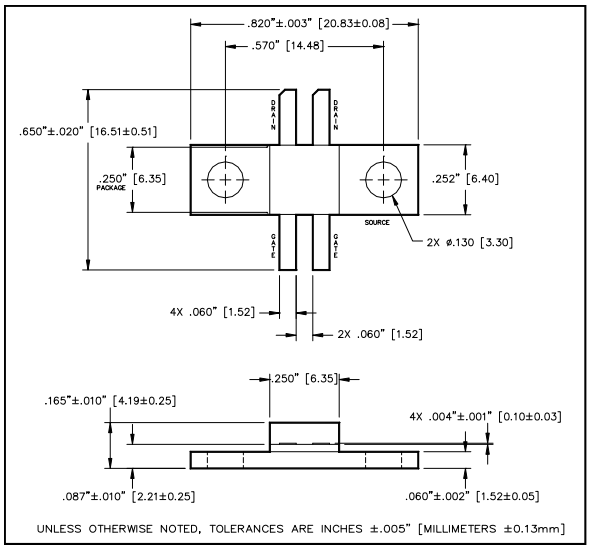
RF Power MOSFET Transistor
8W, 30-90MHz, 12V

M/A-COM Products
Released; RoHS Compliant

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

Package Outline



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	θ_{JC}	1.5	°C/W

LETTER	MILLIMETERS		INCHES	
DIM	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	0.55	0.65
L	1.96	2.46	0.77	0.97
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 V , I_{DS} = 5.0 mA
Drain-Source Leakage Current	I_{DSS}	-	1.0	mA	V_{GS} = 28.0 V , V_{GS} = 0.0 V
Gate-Source Leakage Current	I_{GSS}	-	1.0	µA	V_{GS} = 20.0 V , V_{DS} = 0.0 V
Gate Threshold Voltage	$V_{GS(TH)}$	2.0	6.0	V	V_{DS} = 10.0 V , I_{DS} = 100.0 mA
Forward Transconductance	G_M	500	-	mS	V_{DS} = 28.0 V , I_{DS} = 1000.0 mA , Δ V_{GS} = 1.0V, 80 µs Pulse
Input Capacitance	C_{ISS}	-	45	pF	V_{DS} = 28.0 V , F = 1.0 MHz
Output Capacitance	C_{OSS}	-	40	pF	V_{DS} = 28.0 V , F = 1.0 MHz
Reverse Capacitance	C_{RSS}	-	8	pF	V_{DS} = 28.0 V , F = 1.0 MHz
Power Gain	G_P	13	-	dB	V_{DD} = 12.0 V, I_{DQ} = 600 mA, P_{OUT} = 8.0 W F =88 MHz
Drain Efficiency	η_D	55	-	%	V_{DD} = 12.0 V, I_{DQ} = 600 mA, P_{OUT} = 8.0 W F =88 MHz
Load Mismatch Tolerance	VSWR-T	-	20:1	-	V_{DD} = 12.0 V, I_{DQ} = 600 mA, P_{OUT} = 8.0 W F =88 MHz

*Per side

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