

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

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

M/A-COM Products Released; RoHS Compliant

Package Outline



LETTER	MILLIM	ETERS	INCHES		
DIM	MIN	MAX	MIN	MAX	
A	20.70	20.96	.815	.825	
В	14.35	14.61	.565	.575	
С	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	
н	1.40	1.65	.055	.065	
J	2.92	3.18	.115	.125	
к	1.40	1.65	0.55	0.65	
L	1.96	2.46	0.77	0.97	
м	3.61	4.37	.142	.172	
Ν	.08	.13	.003	.005	

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*	А
Power Dissipation	PD	61*	W
Junction Temperature	TJ	200	°C
Storage Temperature	T _{STG}	-55 to +150	°C
Thermal Resistance	$\theta_{\rm JC}$	1.5	°C/W

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	CISS	-	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	ŋ₀	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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