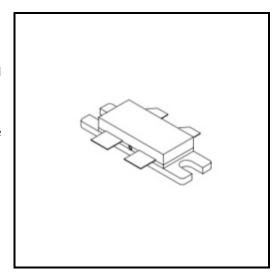


Product Features

The MRF151G is designed for broadband commercial and military applications at frequencies to 175MHz. The high power, high gain, and broadband

performance of this device make possible solid state transmitters for FM broadcast or TV channel frequency bands.



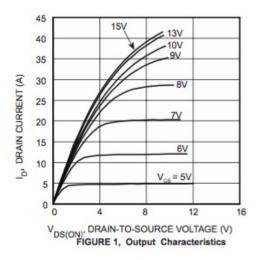
Mechanical And Environmental Specifications:

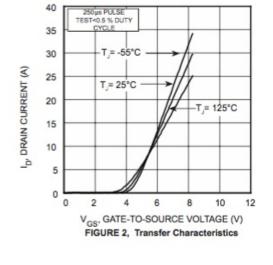
Parameter	Description	Notes
RoHS Compliance	Yes	

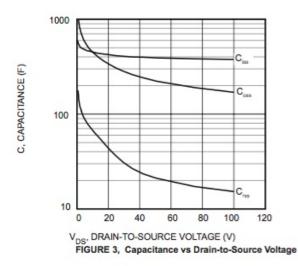
Drawing

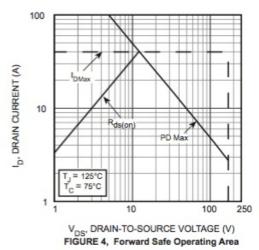


Typical Performance Curves









Graph



Dynamic Characteristics

Symbol	Parameter	Test Conditions	Min	Тур	Max	Unit
C _{iss}	Input Capacitance	V _{GS} = 0V		383		
Coss	Output Capacitance	V _{DS} = 50V		215		pF
C _{rss}	Reverse Transfer Capacitance	f = 1MHz		18		

Functional Characteristics

Symbol	Parameter	Min	Тур	Max	Unit
G_{pg}	$f = 175MHz, -V_{DD} = 50V, I_{DQ} = 500mA, P_{out} = 300W$	14	16		dB
η _D	f = 175MHz, V _{DD} = 50V, I _{DQ} = 500mA, P _{out} = 300W	50	55		%
Ψ	f = 175MHz, V _{DD} = 50V, I _{DQ} = 500mA, P _{out} = 300W 5:1VSWR - All Phase Angles	No Degradation in Output Power			

^{1.} To MIL-STD-1311 Version A, test method 2204B, Two Tone, Reference Each Tone

Maximum Ratings

All Ratings: T_c =25°C unless otherwise specified

Symbol	Parameter		Unit
V _{DSS}	Drain-Source Voltage	130	V
I _D	Continuous Drain Current @ T _c = 25°C	40	Α
V _{GS}	Gate-Source Voltage	±40	V
P _D	Total Device dissipation @ T _C = 25°C	500	w
T _{STG}	Storage Temperature Range	-65 to 150	°C
T,	Operating Junction Temperature	200	

Static Electrical Characteristics

Symbol	Parameter	Min	Тур	Max	Unit
V _{(BR)DSS}	Drain-Source Breakdown Voltage (V _{GS} = 0V, I _D = 100mA)	130			v
R _{DS(ON)}	Drain-Source On-State Resistance (I _{D(ON)} = 10A, V _{GS} = 10V)		.13	.20	l ^v
I _{oss}	Zero Gate Voltage Drain Current (V _{DS} = 50V, V _{GS} = 0V)			50	μA
I _{GSS}	Gate-Source Leakage Current (V _{DS} = ±20V, V _{DS} = 0V)			1.0	μA
g _{fs}	Forward Transconductance (V _{DS} = 10V, I _D = 10A)	5.0	6.2		mhos
V _{GS(TH)}	Gate Threshold Voltage (V _{DS} = 10V, I _D = 100mA)	2.9	3.6	4.4	V

Thermal Characteristics

Symbol	Characteristic	Min	Тур	Max	Unit
R _{e.ic}	Junction to Case Thermal Resistance			0.35	°C/W

CAUTION: These Devices are Sensitive to Electrostatic Discharge. Proper Handling Procedures Should Be Followed.

Product Notes