MOSFET Power Transistor — LF2620C

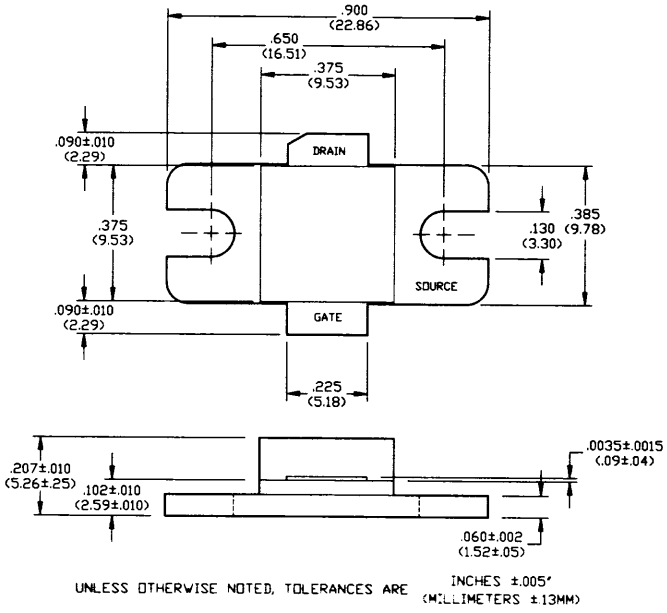
Preliminary

20 Watts, 500 - 1000 MHz, 26 V

Features

- N-Channel Enhancement Mode Device
- UHF to Cellular Applications
- 20 Watts CW
- RESFET Structure
- Gold Metallization

Outline Drawing



Absolute Maximum Ratings at 25°C

Parameter	Symbol	Rating	Units
Drain-Source Voltage	V_{DS}	60	V
Gate-Source Voltage	V_{GS}	20	V
Drain-Source Current	I_{DS}	8	A
Power Dissipation	P_D	58	W
Junction Temperature	T_J	200	°C
Storage Temperature	T_{STG}	-55 to +150	°C
Thermal Resistance	θ_{JC}	3	°C/W

Electrical Characteristics at 25°C

Parameter	Symbol	Min	Max	Units	Test Conditions
Drain-Source Breakdown Voltage	BV_{DSS}	60	-	V	I_D=20.0 mA, V_{GS}=0.0 V
Drain-Source Leakage Current	I_{DSS}	-	2.0	mA	V_{DS}=26.0 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 mA
Forward Transconductance	G_M	500	-	mS	V_{DS}=10.0 V, I_{DS}=1000 mA (pulsed)
Input Capacitance	C_{ISS}		30	pF	V_{DS}=28.0 V, F=1.0 MHz
Output Capacitance	C_{OSS}		7	pF	V_{DS}=28.0 V, F=1.0 MHz
Reverse Capacitance	C_{RSS}		25	pF	V_{DS}=28.0 V, F=1.0 MHz
Power Gain	G_P	10	-	dB	V_{DD}=26.0 V, I_{DQ}=100 mA, P_{OUT}=20 W, F=1000 MHz
Drain Efficiency	η_D	55	-	%	V_{DD}=26.0 V, I_{DQ}=100 mA, P_{OUT}=20 W, F=1000 MHz
Load Mismatch Tolerance	VSWR-T	-	30:1	-	V_{DD}=26.0 V, I_{DQ}=100 mA, P_{OUT}=20 W, F=1000 MHz