



查询 "LX501" 供应商

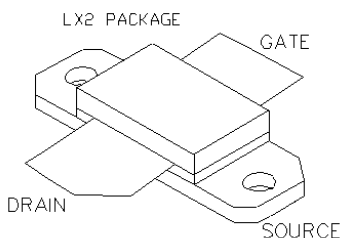
polyfet rf devices

LX501

General Description

Silicon VDMOS and LDMOS transistors designed specifically for broadband RF applications. Suitable for Military Radios, Cellular and Paging Amplifier Base Stations, Broadcast FM/AM, MRI, Laser Driver and others.

"Polyfet"™ process features low feedback and output capacitances, resulting in high F_t transistors with high input impedance and high efficiency.



SILICON GATE ENHANCEMENT MODE

RF POWER LDMOS TRANSISTOR

100.0 Watts Single Ended

Package Style LX2

**HIGH EFFICIENCY, LINEAR
HIGH GAIN, LOW NOISE**

ABSOLUTE MAXIMUM RATINGS ($T = 25^{\circ}\text{C}$)

Total Device Dissipation	Junction to Case Thermal Resistance	Maximum Junction Temperature	Storage Temperature	DC Drain Current	Drain to Gate Voltage	Drain to Source Voltage	Gate to Source Voltage
220 Watts	0.75°C/W	200°C	-65°C to 150°C	13.0 A	70 V	70 V	20 V

RF CHARACTERISTICS (100.0 WATTS OUTPUT)

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	TEST CONDITIONS
Gps	Common Source Power Gain	12			dB	$I_{dq} = 0.80 \text{ A}$, $V_{ds} = 28.0 \text{ V}$, $F = 500 \text{ MHz}$
η	Drain Efficiency		50		%	$I_{dq} = 0.80 \text{ A}$, $V_{ds} = 28.0 \text{ V}$, $F = 500 \text{ MHz}$
VSWR	Load Mismatch Tolerance			5:1	Relative	$I_{dq} = 0.80 \text{ A}$, $V_{ds} = 28.0 \text{ V}$, $F = 500 \text{ MHz}$

ELECTRICAL CHARACTERISTICS (EACH SIDE)

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	TEST CONDITIONS
Bvdss	Drain Breakdown Voltage	65			V	$I_{ds} = 0.25 \text{ mA}$, $V_{gs} = 0\text{V}$
Idss	Zero Bias Drain Current			1.0	mA	$V_{ds} = 28.0 \text{ V}$, $V_{gs} = 0\text{V}$
Igss	Gate Leakage Current			1	uA	$V_{ds} = 0\text{V}$, $V_{gs} = 30\text{V}$
Vgs	Gate Bias for Drain Current	1		7	V	$I_{ds} = 0.30 \text{ A}$, $V_{gs} = V_{ds}$
gM	Forward Transconductance		4.8		Mho	$V_{ds} = 10\text{V}$, $V_{gs} = 5\text{V}$
Rdson	Saturation Resistance		0.20		Ohm	$V_{gs} = 20\text{V}$, $I_{ds} \leq 13.00 \text{ A}$
Idsat	Saturation Current		30.00		Amp	$V_{gs} = 20\text{V}$, $V_{ds} = 10\text{V}$
Ciss	Common Source Input Capacitance		150.0		pF	$V_{ds} = 28.0$, $V_{gs} = 0\text{V}$, $F = 1 \text{ MHz}$
Crss	Common Source Feedback Capacitance		7.5		pF	$V_{ds} = 28.0$, $V_{gs} = 0\text{V}$, $F = 1 \text{ MHz}$
Coss	Common Source Output Capacitance		100.0		pF	$V_{ds} = 28.0$, $V_{gs} = 0\text{V}$, $F = 1 \text{ MHz}$

POLYFET RF DEVICES

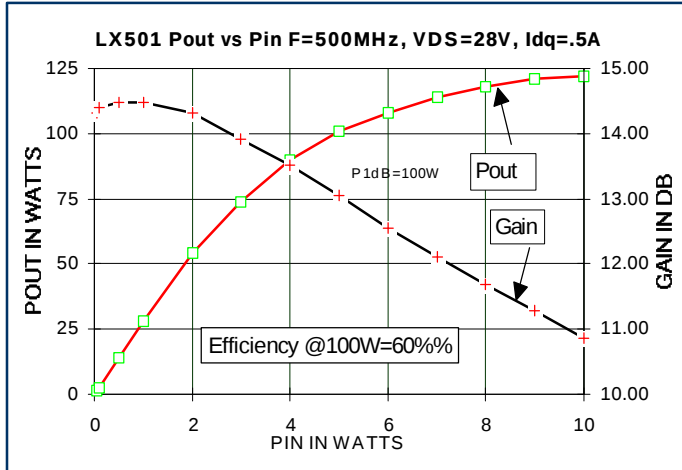
REVISION 07/17/2003

1110 Avenida Acaso, Camarillo, Ca 93012 Tel:(805) 484-4210 FAX: (805) 484-3393 EMAIL:Sales@polyfet.com URL:www.polyfet.com

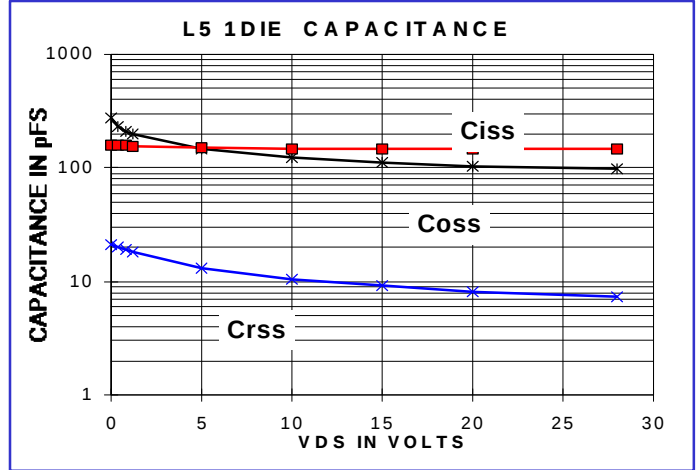
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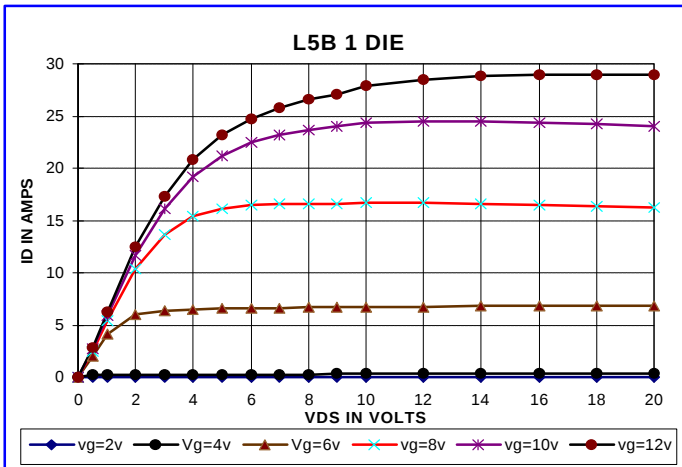
POUT VS PIN GRAPH



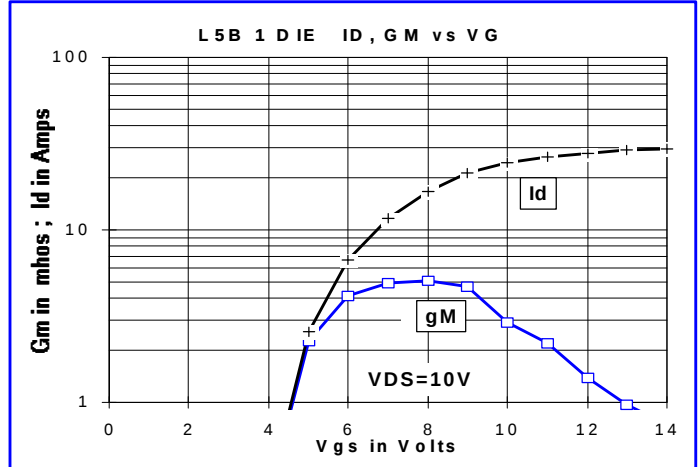
CAPACITANCE VS VOLTAGE



IV CURVE



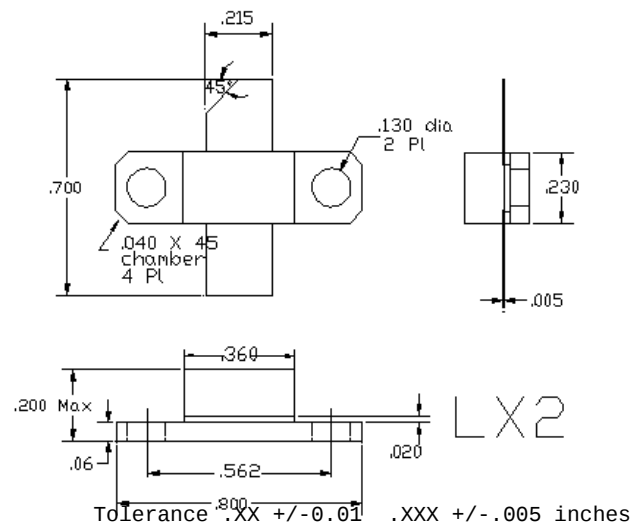
ID & GM VS VGS



Zin Zout

LX501 Vdd=28V Idq=400mA Pout=80W				
Freq(MHz)		500		
		1.6		
Zin		-j0.3		
		1.8		
Zout		+j1.3		

PACKAGE DIMENSIONS IN INCHES



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