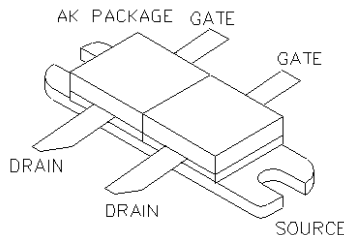




General Description

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"TM 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 Push - Pull

Package Style AK

HIGH EFFICIENCY, LINEAR

HIGH GAIN, LOW NOISE

ROHS COMPLIANT

ABSOLUTE MAXIMUM RATINGS (T = 25 °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
310 Watts	0.57 °C/W	200 °C	-65 °C to 150 °C	18.0 A	110 V	110 V	20 V

RF CHARACTERISTICS (100.0 WATTS OUTPUT)

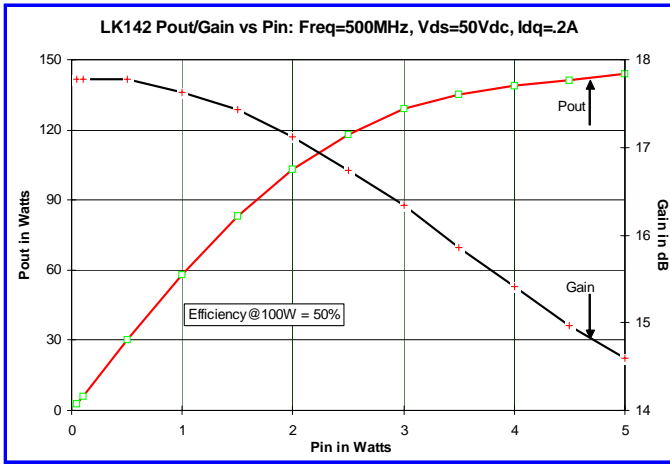
SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	TEST CONDITIONS
Gps	Common Source Power Gain	16			dB	Idq = 0.40 A, Vds = 50.0 V, F = 500 MHz
η	Drain Efficiency		50		%	Idq = 0.40 A, Vds = 50.0 V, F = 500 MHz
VSWR	Load Mismatch Tolerance			15:1	Relative	Idq = 0.40 A, Vds = 50.0 V, F = 500 MHz

ELECTRICAL CHARACTERISTICS (EACH SIDE)

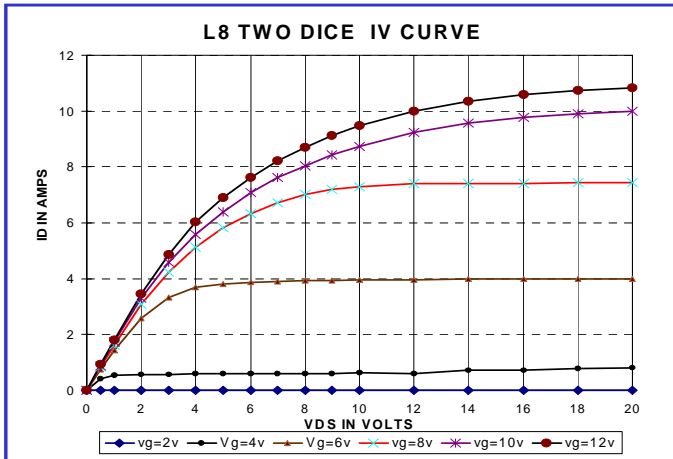
SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	TEST CONDITIONS
Bvdss	Drain Breakdown Voltage	110			V	Ids = 50.00 mA, Vgs = 0V
Idss	Zero Bias Drain Current			2.0	mA	Vds = 50.0 V, Vgs = 0V
Igss	Gate Leakage Current			1	uA	Vds = 0V Vgs = 30V
Vgs	Gate Bias for Drain Current	2		5	V	Ids = 0.30 A, Vgs = Vds
gM	Forward Transconductance		2.0		Mho	Vds = 10V, Vgs = 5V
Rdson	Saturation Resistance		0.50		Ohm	Vgs = 20V, Ids = 2.00 A
Idsat	Saturation Current		11.00		Amp	Vgs = 20V, Vds = 10V
Ciss	Common Source Input Capacitance		60.0		pF	Vds = 50.0 Vgs = 0V, F = 1 MHz
Crss	Common Source Feedback Capacitance		1.4		pF	Vds = 50.0 Vgs = 0V, F = 1 MHz
Coss	Common Source Output Capacitance		60.0		pF	Vds = 50.0 Vgs = 0V, F = 1 MHz

LK142

POUT VS PIN GRAPH

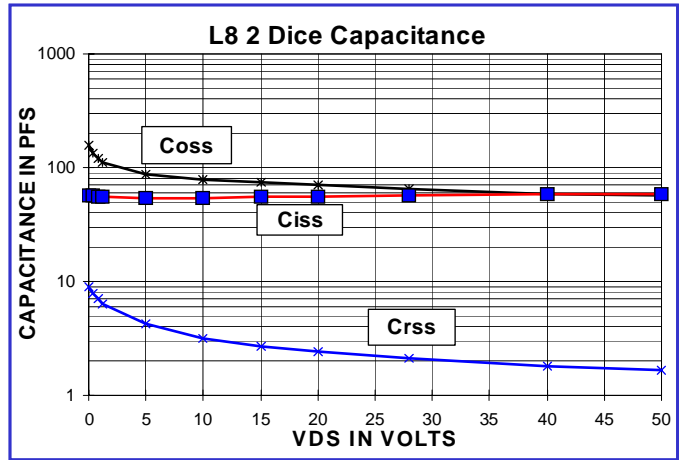


IV CURVE

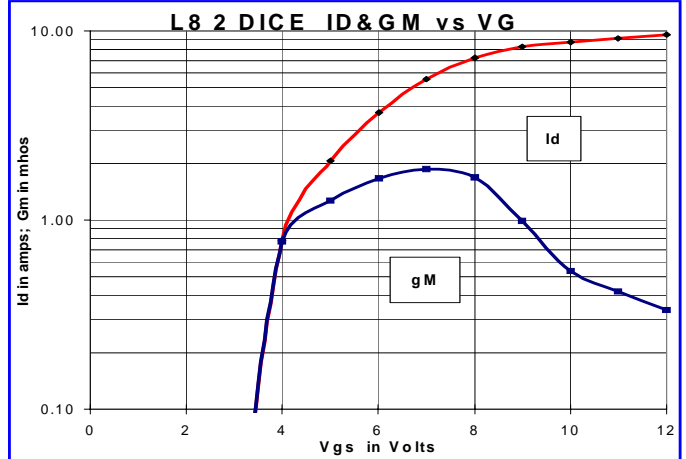


Zin Zout

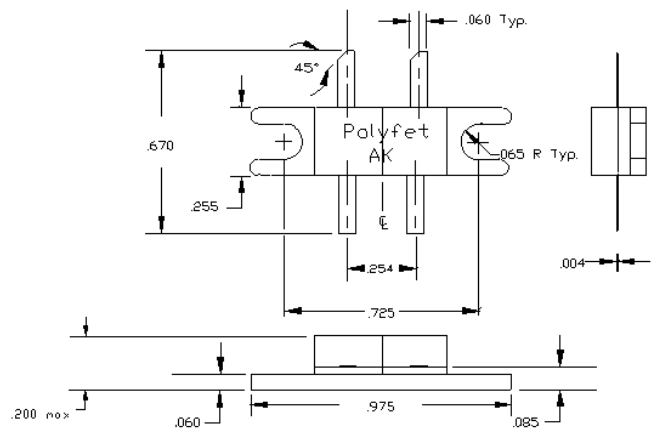
CAPACITANCE VS VOLTAGE



ID & GM VS VGS



PACKAGE DIMENSIONS IN INCHES



Polyfet AK Package

Tolerance .XX +/-0.01 .XXX +/-0.005 inches

POLYFET RF DEVICES

REVISION 11/23/0009

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