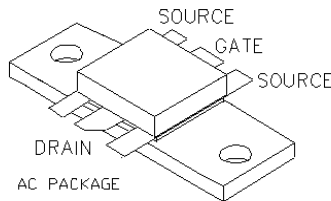




**General Description**

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"<sup>TM</sup> process features gold metal for greatly extended lifetime. Low output capacitance and high  $F_t$  enhance broadband performance



**PATENTED GOLD METALIZED SILICON GATE ENHANCEMENT MODE RF POWER VDMOS TRANSISTOR**

**4 Watts Single Ended**

**Package Style AC**

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

**ABSOLUTE MAXIMUM RATINGS (TC = 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
30 Watts	6 °C/W	200 °C	-65 °C to 150 °C	1.6 A	50 V	50V	30V

**RF CHARACTERISTICS ( 4WATTS OUTPUT )**

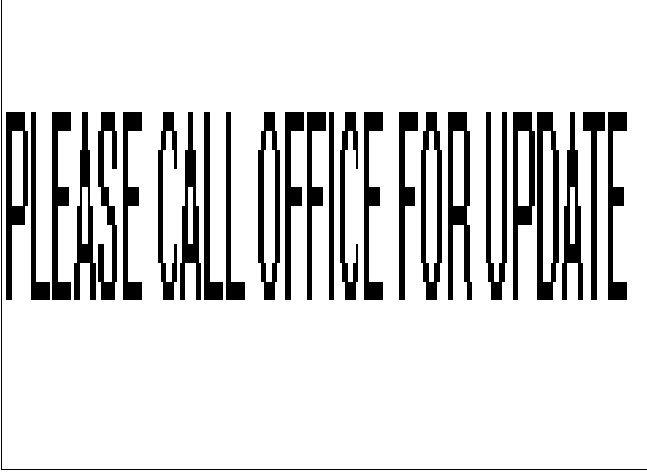
SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	TEST CONDITIONS
Gps	Common Source Power Gain	10			dB	Idq = 0.4 A, Vds = 12.5V, F = 850 MHz
$\eta$	Drain Efficiency		50		%	Idq = 0.4 A, Vds = 12.5V, F = 850 MHz
VSWR	Load Mismatch Tolerance			20:1	Relative	Idq = 0.4 A, Vds = 12.5V, F = 850 MHz

**ELECTRICAL CHARACTERISTICS (EACH SIDE)**

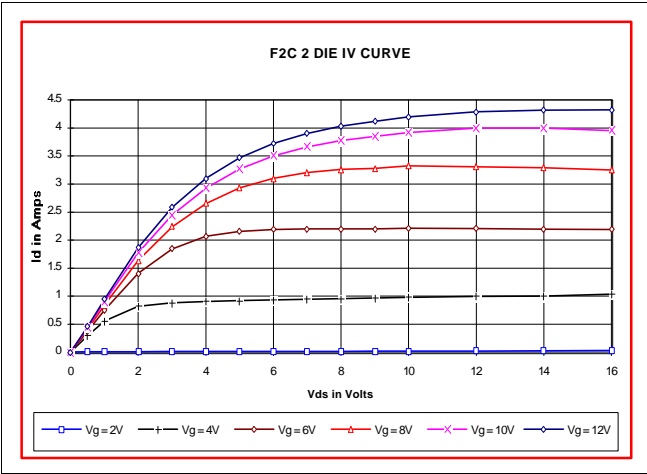
SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	TEST CONDITIONS
Bvdss	Drain Breakdown Voltage	40			V	Ids = 0.02 A, Vgs = 0V
Idss	Zero Bias Drain Current			0.4	mA	Vds = 12.5 V, Vgs = 0V
Igss	Gate Leakage Current			1	uA	Vds = 0 V, Vgs = 30V
Vgs	Gate Bias for Drain Current	1		7	V	Ids = 0.04 A, Vgs = Vds
gM	Forward Transconductance		0.4		Mho	Vds = 10V, Vgs = 5V
Rdson	Saturation Resistance		1.2		Ohm	Vgs = 20V, Ids = 3.2A
Idsat	Saturation Current		4.6		Amp	Vgs = 20V, Vds = 10V
Ciss	Common Source Input Capacitance		15		pF	Vds = 12.5 V, Vgs = 0V, F = 1 MHz
Crss	Common Source Feedback Capacitance		2.4		pF	Vds = 12.5 V, Vgs = 0V, F = 1 MHz
Coss	Common Source Output Capacitance		16		pF	Vds = 12.5 V, Vgs = 0V, F = 1 MHz

# F2247

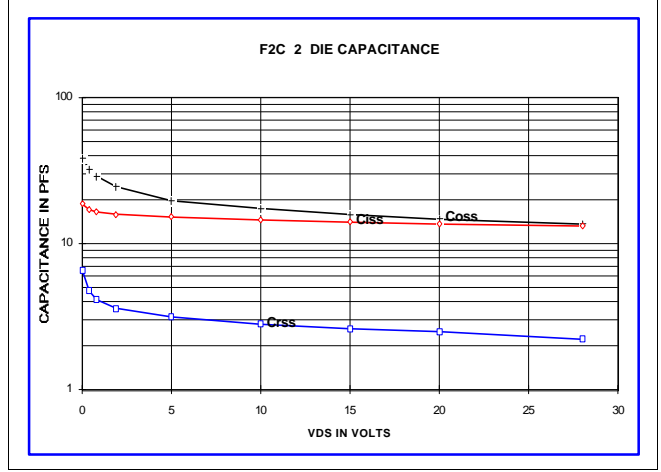
POUT VS PIN GRAPH



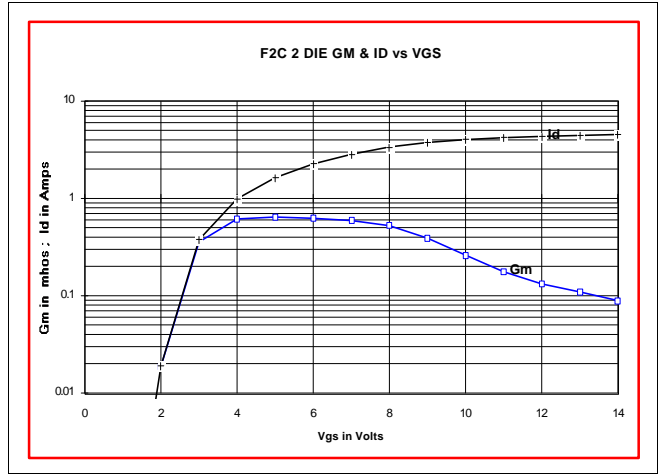
IV CURVE



CAPACITANCE VS VOLTAGE



ID AND GM VS VGS



S11 AND S22 SMITH CHART

PACKAGE DIMENSIONS IN INCHES

**PLEASE CALL OFFICE FOR UPDATE**

