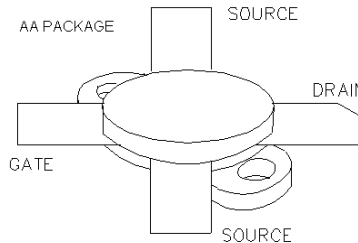




General Description

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 gold metal for greatly extended lifetime. Low output capacitance and high F_t enhance broadband performance



PATENTED GOLD METALIZED SILICON GATE ENHANCEMENT MOD
RF POWER VDMOSTRANSISTOR

15.0 Watts Single Ended
Package Style AA

HIGH EFFICIENCY, LINEAR
HIGH GAIN, LOW NOISE

ABSOLUTE MAXIMUM RATINGS ($T_C = 25^\circ C$)

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
50 Watts	3.13 $^\circ C/W$	200 $^\circ C$	-65 $^\circ C$ to 150 $^\circ C$	2.0 A	70V	70V	30V

RF CHARACTERISTICS (15.0 WATTS OUTPUT)

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	TEST CONDITIONS
Gps	Common Source Power Gain	13			dB	$I_{dq} = 0.20 A, V_{ds} = 28.0 V, F = 150 MHz$
η	Drain Efficiency		60		%	$I_{dq} = 0.20 A, V_{ds} = 28.0 V, F = 150 MHz$
VSWR	Load Mismatch Tolerance			20:1	Relative	$I_{dq} = 0.20 A, V_{ds} = 28.0 V, F = 150 MHz$

ELECTRICAL CHARACTERISTICS (EACH SIDE)

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	TEST CONDITIONS
Bvdss	Drain Breakdown Voltage	65			V	$I_{ds} = 0.05 A, V_{gs} = 0V$
Idss	Zero Bias Drain Current			1.0	mA	$V_{ds} = 28.0 V, V_{gs} = 0V$
Igss	Gate Leakage Current			1	μA	$V_{ds} = 0V, V_{gs} = 30V$
Vgs	Gate Bias for Drain Current	1		7	V	$I_{ds} = 0.10 A, V_{gs} = V_{ds}$
gM	Forward Transconductance		0.8		Mho	$V_{ds} = 10V, V_{gs} = 5V$
Rdson	Saturation Resistance		1.00		Ohm	$V_{gs} = 20V, I_{ds} = 4.00 A$
I _{dsat}	Saturation Current		5.50		Amp	$V_{gs} = 20V, V_{ds} = 10V$
Ciss	Common Source Input Capacitance		33.0		pF	$V_{ds} = 28.0 V, V_{gs} = 0V, F = 1 MHz$
Crss	Common Source Feedback Capacitance		4.0		pF	$V_{ds} = 28.0 V, V_{gs} = 0V, F = 1 MHz$
Coss	Common Source Output Capacitance		20.0		pF	$V_{ds} = 28.0 V, V_{gs} = 0V, F = 1 MHz$