

SILICON MOS N-CHANNEL POWER TRANSISTOR

15 W, up to 400 MHz, Enhancement Mode

MRF136

The silicon MOS transistor is designed for Wideband Large Signal Amplifier Applications up to 400 MHz.

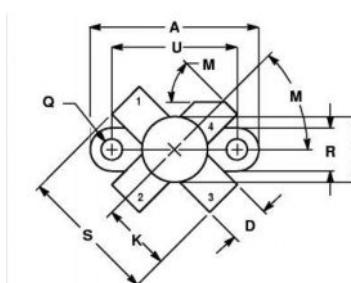
Features:

- Power Gain: 12 dB Min
- Output Power: 15 W
- Efficiency: 50 % Min

Absolute Maximum Ratings

Parameters	Sym	Value	Unit
Drain-Source Voltage	V _{DSS}	65	V _{DC}
Drain Current-Continuous	I _D	2.5	A _{DC}
Gate-Source Voltage	V _{GS}	±40	V _{DC}
Operation Junction Temperature	T _j	-65 ÷ +200	°C
Storage Temperature Range	T _{STG}	-65 ÷ +150	°C
Thermal Resistance, Junction to Case	R _{θJC}	3.6	°C/W
Total Power Dissipation	P _D	50	W

CASE 211-07



NOTES:
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.960	0.990	24.39	25.14
B	0.370	0.390	9.40	9.90
C	0.229	0.281	5.82	7.13
D	0.215	0.235	5.47	5.96
E	0.085	0.105	2.16	2.66
H	0.150	0.160	3.81	4.57
J	0.004	0.006	0.11	0.15
K	0.395	0.405	10.04	10.28
M	40°	50°	40°	50°
Q	0.113	0.130	2.88	3.30
R	0.245	0.255	6.23	6.47
S	0.780	0.810	20.07	20.57
U	0.720	0.730	18.29	18.54

STYLE 2:
PIN 1. SOURCE
2. GATE
3. SOURCE
4. DRAIN
SEATING PLANE

Parameters

Parameter	Symbol	Min.	Typ.	Max.	Unit
Drain-Source Breakdown Voltage (I _{DS} = 5 mA, V _{GS} = 0 V)	V _{(BR)DSS}	65	—	—	V _{DC}
Gate-Source Leakage Current (V _{GS} =40 V, V _{DS} =0 V)	I _{GSS}	—	—	1	μA _{DC}
Zero Gate Voltage Drain Leakage Current (V _{DS} = 28 V, V _{GS} =0 V)	I _{DSS}	—	—	2	mA _{DC}
Gate Threshold Voltage (V _{DS} = 10 V, I _D = 25 mA)	V _{GS(TH)}	1	3	6	V _{DC}
Forward Transconductance (V _{DS} = 10 V, I _D = 250 mA)	G _{FS}	250	400	—	mmhos
Input Capacitance (V _{DS} = 28 V, V _{GS} =0 V, f = 1 MHz)	C _{ISS}	—	24	—	pF
Output Capacitance (V _{DS} = 28 V, V _{GS} =0 V, f = 1 MHz)	C _{OSS}	—	—	25	pF
Reverse Transfer Capacitance (V _{DS} = 28 V, V _{GS} =0 V, f = 1 MHz)	C _{RSS}	—	5.5	—	pF
Power Gain (V _{DS} = 28 V, P _{OUT} = 15 W, I _{DQ} = 25 mA, f = 150 MHz)	G _p	12	16	—	dB
Drain Efficiency (V _{DS} = 28 V, P _{OUT} = 15 W, I _{DQ} = 25 mA, f = 150 MHz)	η _D	50	60	—	%

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Specification is subject to change without notice