



ELECTROSTATIC SENSITIVE DEVICE
OBSERVE HANDLING PRECAUTIONS

MITSUBISHI RF POWER MOS FET

RD100HHF1

Silicon MOSFET Power Transistor 30MHz,100W

DESCRIPTION

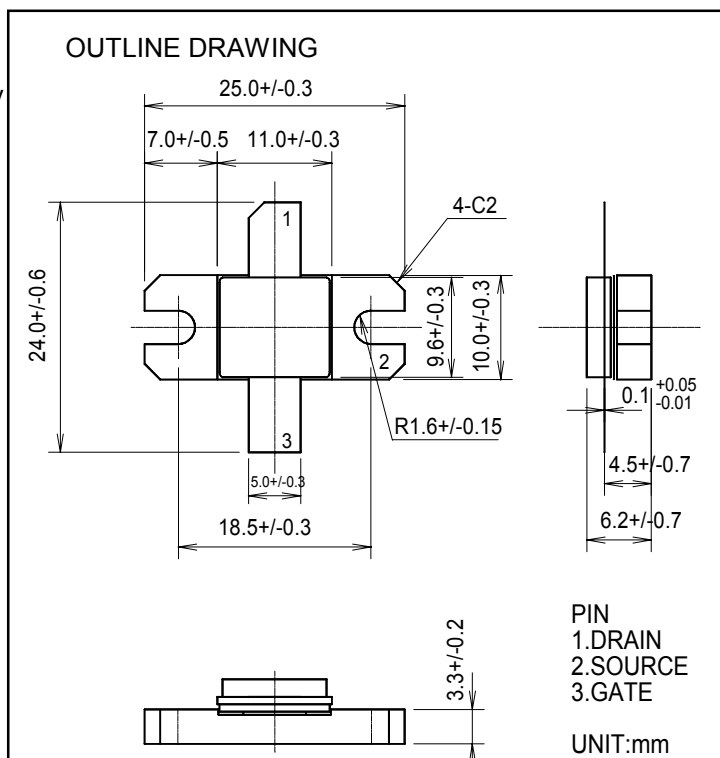
RD100HHF1 is a MOS FET type transistor specifically designed for HF High power amplifiers applications.

FEATURES

- High power and High Gain:
Pout>100W, Gp>11.5dB @Vdd=12.5V,f=30MHz
- High Efficiency: 60%typ.on HF Band

APPLICATION

For output stage of high power amplifiers in HF Band mobile radio sets.



ABSOLUTE MAXIMUM RATINGS

(Tc=25°C UNLESS OTHERWISE NOTED)

SYMBOL	PARAMETER	CONDITIONS	RATINGS	UNIT
VDSS	Drain to source voltage	Vgs=0V	50	V
VGSS	Gate to source voltage	Vds=0V	+/-20	V
Pch	Channel dissipation	Tc=25°C	176.5	W
Pin	Input power	Zg=Zl=50Ω	12.5	W
ID	Drain current	-	25	A
Tch	Channel temperature	-	175	°C
Tstg	Storage temperature	-	-40 to +175	°C
Rth j-c	Thermal resistance	junction to case	0.85	°C/W

Note 1: Above parameters are guaranteed independently.

ELECTRICAL CHARACTERISTICS (Tc=25°C UNLESS OTHERWISE NOTED)

SYMBOL	PARAMETER	CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX.	
Idss	Zerogate voltage drain current	VDS=17V, VGS=0V	-	-	10	uA
IGSS	Gate to source leak current	VGS=10V, VDS=0V	-	-	1	uA
VTH	Gate threshold voltage	VDS=12V, IDS=1mA	1.5	-	4.5	V
Pout	Output power	f=30MHz, VDD=12.5V	100	110	-	W
ηD	Drain efficiency	Pin=7W, Idq=1.0A	55	60	-	%
	Load VSWR tolerance	VDD=15.2V, Po=100W(Pin Control) f=30MHz, Idq=1.0A, Zg=50Ω Load VSWR=20:1(All Phase)	No destroy			-

Note : Above parameters , ratings , limits and conditions are subject to change.



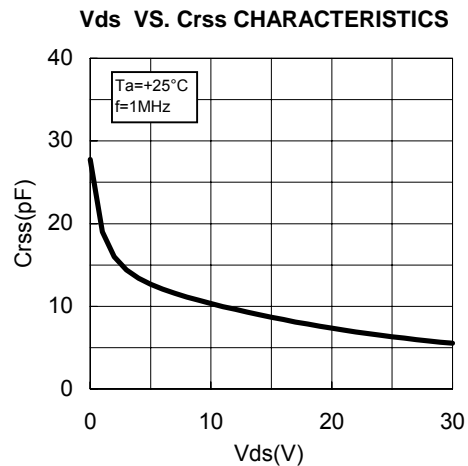
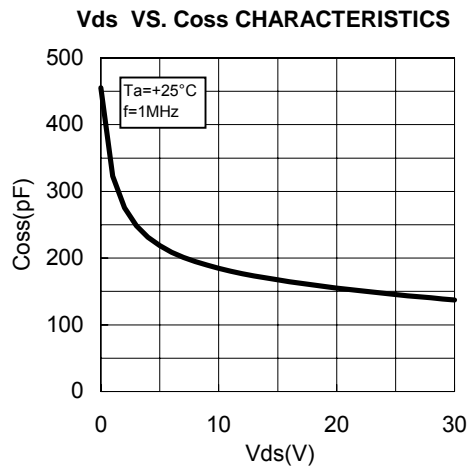
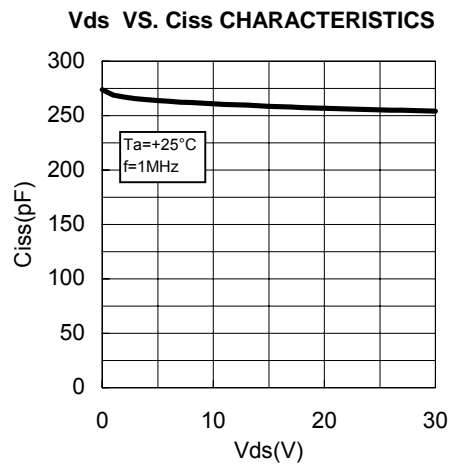
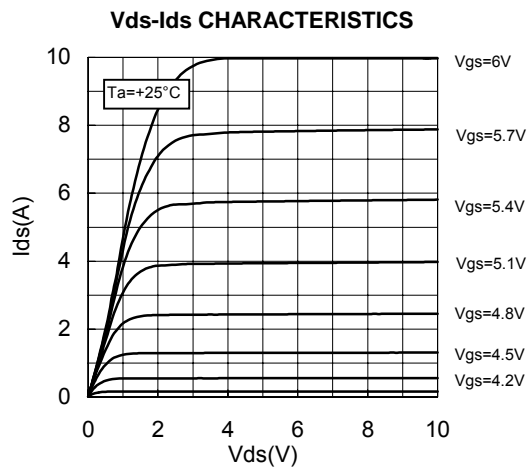
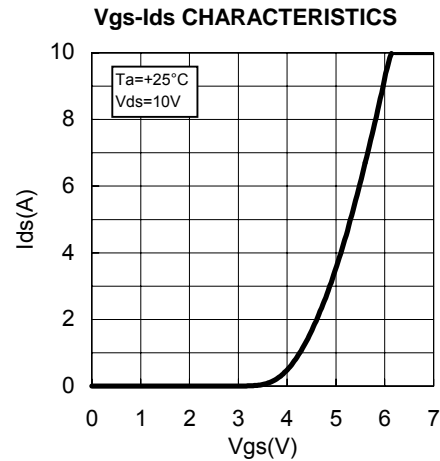
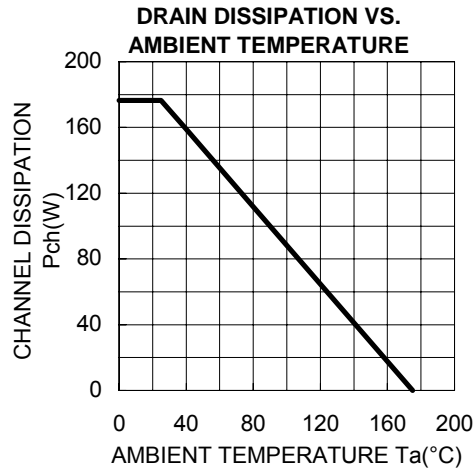
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TYPICAL CHARACTERISTICS





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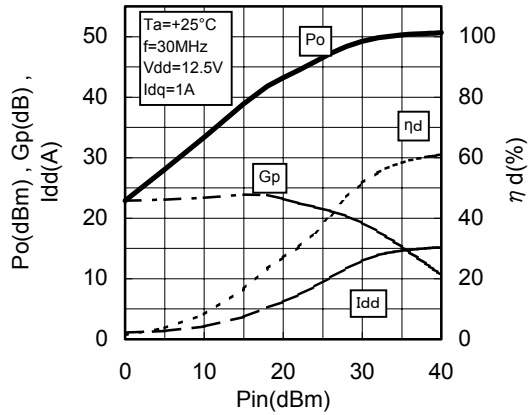
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RD100HHF1

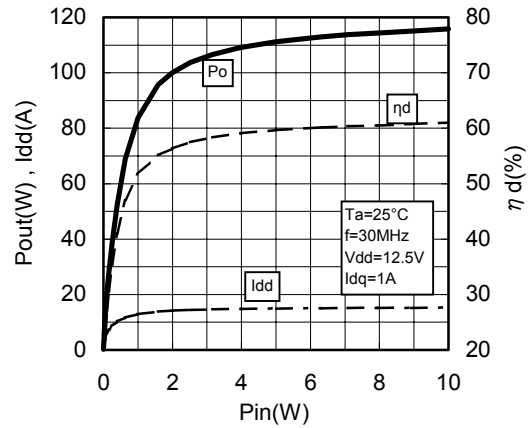
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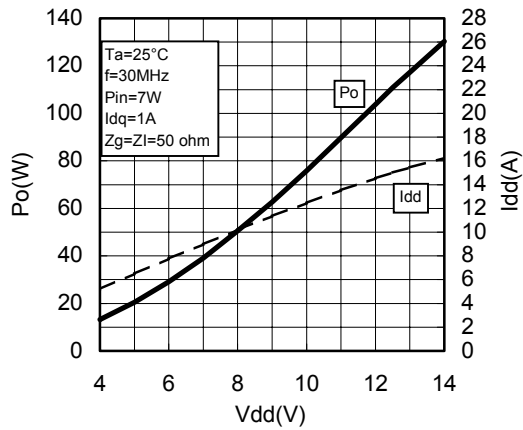
Pin-Po CHARACTERISTICS



Pin-Po CHARACTERISTICS



Vdd-Po CHARACTERISTICS



Vgs-Ids CHARACTERISTICS 2 +25°C

