



ELECTROSTATIC SENSITIVE DEVICE
OBSERVE HANDLING PRECAUTIONS

MITSUBISHI RF POWER MOS FET

RD70HHF1

Silicon MOSFET Power Transistor 30MHz,70W

DESCRIPTION

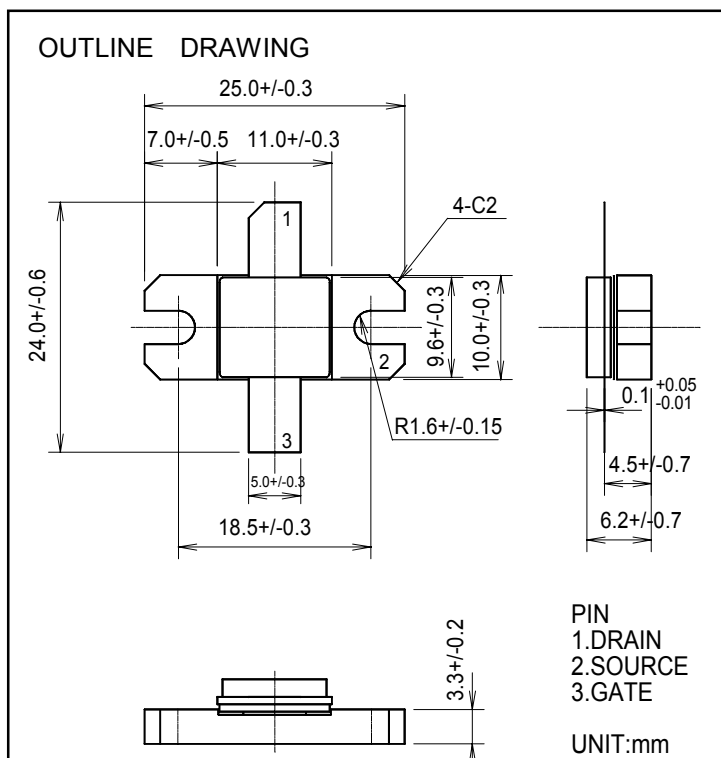
RD70HHF1 is a MOS FET type transistor specifically designed for HF High power amplifiers applications.

FEATURES

- High power and High Gain:
Pout>70W, Gp>13dB @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
V _{DSS}	Drain to source voltage	V _{GS} =0V	50	V
V _{GSS}	Gate to source voltage	V _{DS} =0V	+/-20	V
P _{ch}	Channel dissipation	T _c =25°C	150	W
P _{in}	Input power	Z _g =Z _l =50Ω	5	W
I _D	Drain current	-	20	A
T _{ch}	Channel Temperature	-	175	°C
T _{stg}	Storage temperature	-	-40 to +175	°C
R _{th j-c}	Thermal resistance	junction to case	1.0	°C/W

Note 1: Above parameters are guaranteed independently.

ELECTRICAL CHARACTERISTICS (Tc=25deg.C , UNLESS OTHERWISE NOTED)

SYMBOL	PARAMETER	CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX.	
I _{DSS}	Zero gate voltage drain current	V _{DS} =17V, V _{GS} =0V	-	-	10	μA
I _{GSS}	Gate to source leak current	V _{GS} =10V, V _{DS} =0V	-	-	1	μA
V _{TH}	Gate threshold voltage	V _{DS} =12V, I _{DS} =1mA	1.5	-	4.5	V
P _{out}	Output power	f=30MHz, V _{DD} =12.5V	70	80	-	W
η _D	Drain efficiency	P _{in} =3.5W, I _{dq} =1.0A	55	60	-	%
	Load VSWR tolerance	V _{DD} =15.2V, P _o =70W(Pin Control) f=30MHz, I _{dq} =1.0A, Z _g =50Ω Load VSWR=20:1(All Phase)	No destroy			-

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