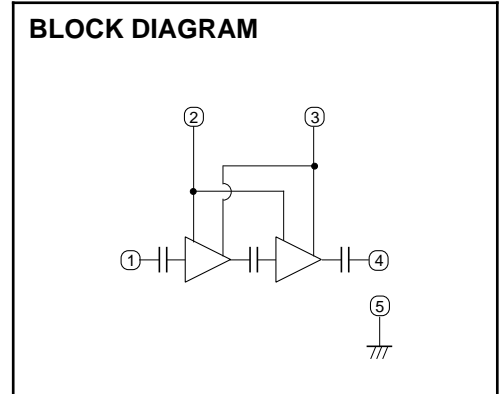
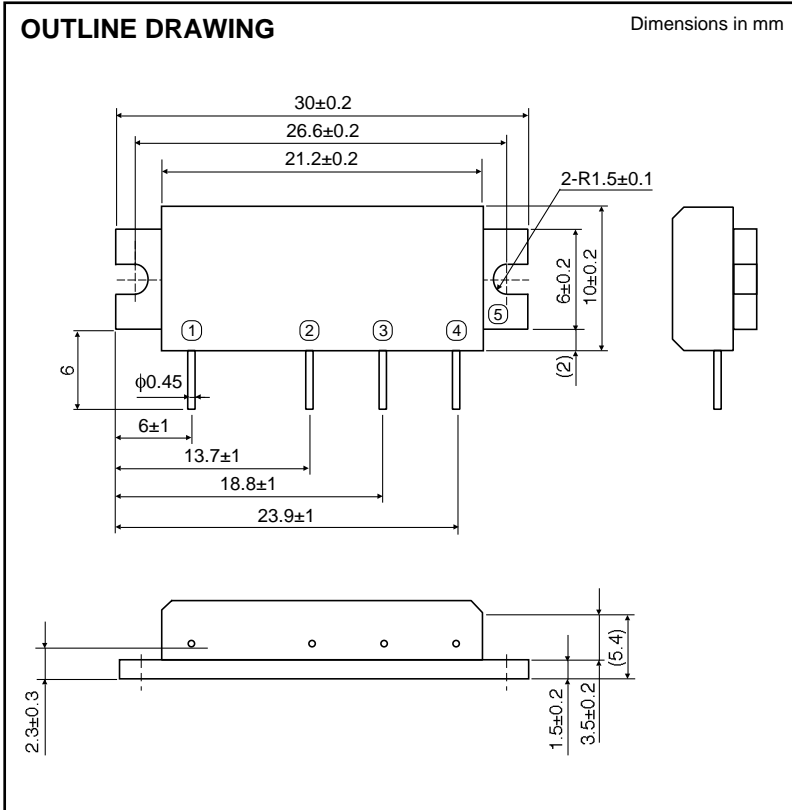


mitsubishi rf power module
M68731N

SILICON MOS FET POWER AMPLIFIER, 142-163MHz, 7W, FM PORTABLE RADIO



- PIN:
 ① P_{in} : RF INPUT
 ② V_{GG} : GATE BIAS SUPPLY
 ③ V_{DD} : DRAIN BIAS SUPPLY
 ④ P_O : RF OUTPUT
 ⑤ GND: FIN

ABSOLUTE MAXIMUM RATINGS (T_c=25°C unless otherwise noted)

Symbol	Parameter	Conditions	Ratings	Unit
V _{DD}	Supply voltage	V _{GG} 3.5V, Z _G =Z _L =50	9.2	V
V _{GG}	Gate bias voltage		4	V
P _{in}	Input power	f=142-163MHz, Z _G =Z _L =50	70	mW
P _O	Output power	f=142-163MHz, Z _G =Z _L =50	10	W
T _{C (OP)}	Operation case temperature	f=142-163MHz, Z _G =Z _L =50	-30 to +100	°C
T _{stg}	Storage temperature		-40 to +110	°C

Note. Above parameters are guaranteed independently.

ELECTRICAL CHARACTERISTICS (T_c=25°C, Z_G=Z_L=50 unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit	
			Min	Max		
f	Frequency range		142	163	MHz	
P _O	Output power	V _{DD} =7.2V, V _{GG} =3.5V, P _{in} =50W	7		W	
η	Total efficiency		45		%	
2f _o	2nd. harmonic			-20		dBc
in	Input VSWR			4		-
-	Stability	Z _G =50, V _{DD} =4-9.2V, Load VSWR<4:1	No parasitic oscillation		-	
-	Load VSWR tolerance	V _{DD} =9.2V, P _{in} =50mW, P _O =7W (V _{GG} adjust), Z _L =20:1	No degradation or destroy		-	

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

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TYPICAL PERFORMANCE DATA

