

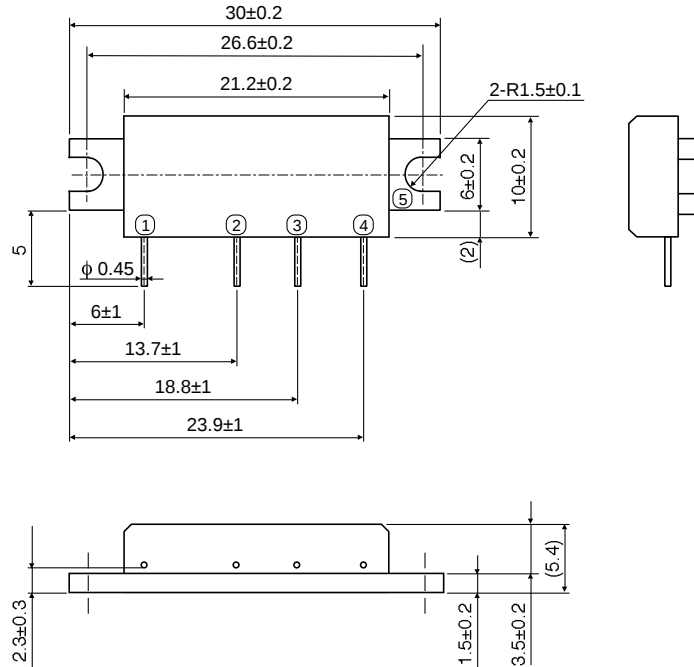
MITSUBISHI RF POWER MODULE

M68710EL

SILICON MOS FET POWER AMPLIFIER, 290-330MHz, 2W, FM PORTABLE RADIO

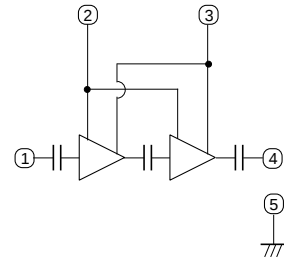
OUTLINE DRAWING

Dimensions in mm



H46

BLOCK DIAGRAM



PIN:

- ① Pin : 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 =50W	9	V
V _{GG}	Gate bias voltage		4	V
P _{in}	Input power	f=290-330MHz, Z _G =Z _L =50W	30	mW
P _O	Output power	f=290-330MHz, V _{DD} ≤9V, Z _G =Z _L =50W	3	W
T _{C (OP)}	Operation case temperature	f=290-330MHz, V _{DD} ≤9V, Z _G =Z _L =50W	-30 to +110	°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=50W unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range		290	330	MHz
P _O	Output power	V _{DD} =6V, V _{GG} =3.5V, P _{in} =20mW	2		W
h _T	Total efficiency		40		%
2f _o	2nd. harmonic			-20	dBc
r _{in}	Input VSWR			4	-
-	Stability	Z _G =50W, V _{DD} =4-9V, Load VSWR<4:1	No parasitic oscillation		-
-	Load VSWR tolerance	V _{DD} =9V, P _{in} =20mW, P _O =3W (V _{GG} adjust), Z _L =20:1	No degradation or destroy		-

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