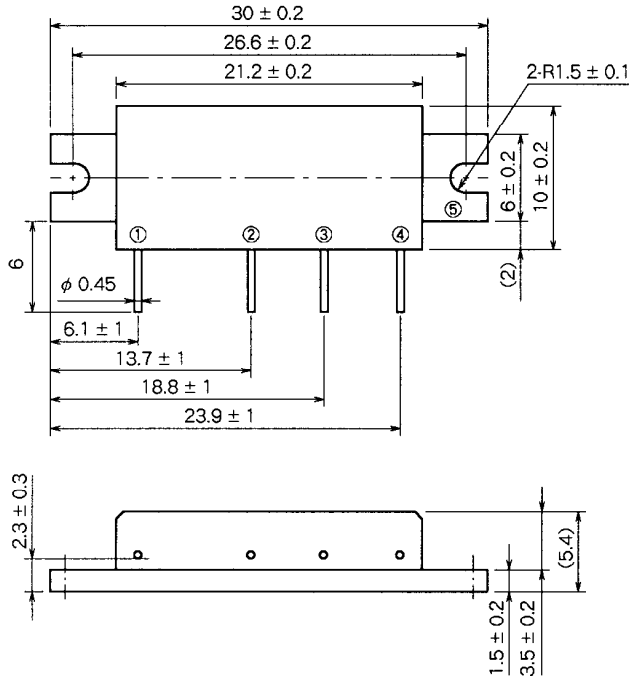


M68710H

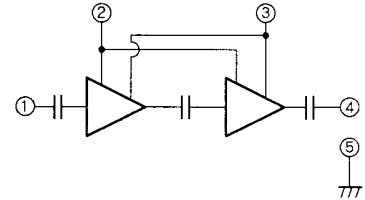
450-470MHz, 6V, 2W, FM PORTABLE RADIO

OUTLINE DRAWING

Dimensions in mm



BLOCK DIAGRAM



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 = 50Ω	9	V
V _{GG}	Gate bias voltage		4	V
P _{in}	Input power	f = 450 to 470MHz, Z _G = Z _L = 50Ω	30	mW
P _O	Output power	f = 450 to 470MHz, V _{DD} ≤ 9V, Z _G = Z _L = 50Ω	3	W
T _{C(OP)}	Operation case temperature	f = 450 to 470MHz, V _{DD} ≤ 9V, Z _G = Z _L = 50Ω	- 30 to 110	°C
T _{stg}	Storage temperature		- 40 to 110	°C

Note. Above parameters are guaranteed independently.

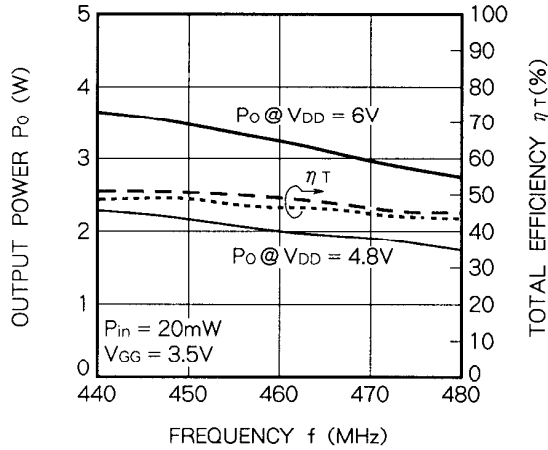
ELECTRICAL CHARACTERISTICS (T_C = 25 °C, Z_G = Z_L = 50Ω, unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range		450	470	MHz
P _O	Output power		2		W
η _T	Total efficiency	V _{DD} = 6V	40		%
2f _o	2nd. harmonic	V _{GG} = 3.5V		- 25	dBc
3f _o	3rd. harmonic	P _{in} = 20mW		- 30	dBc
ρ _{in}	Input VSWR			4	-
-	Stability	Z _G = 50Ω, V _{DD} = 4 to 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		-

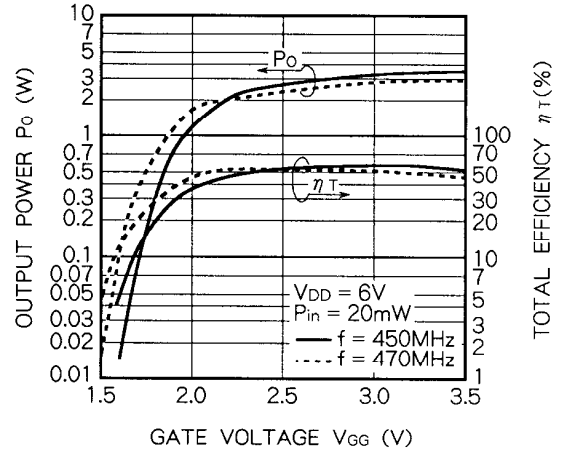
Note : Above parameters, ratings, limits and conditions are subject to change.

TYPICAL PERFORMANCE DATA

OUTPUT POWER, TOTAL EFFICIENCY
VS. FREQUENCY CHARACTERISTICS



OUTPUT POWER, TOTAL EFFICIENCY
VS. GATE VOLTAGE CHARACTERISTICS



OUTPUT POWER, TOTAL EFFICIENCY
VS. SUPPLY VOLTAGE CHARACTERISTICS

