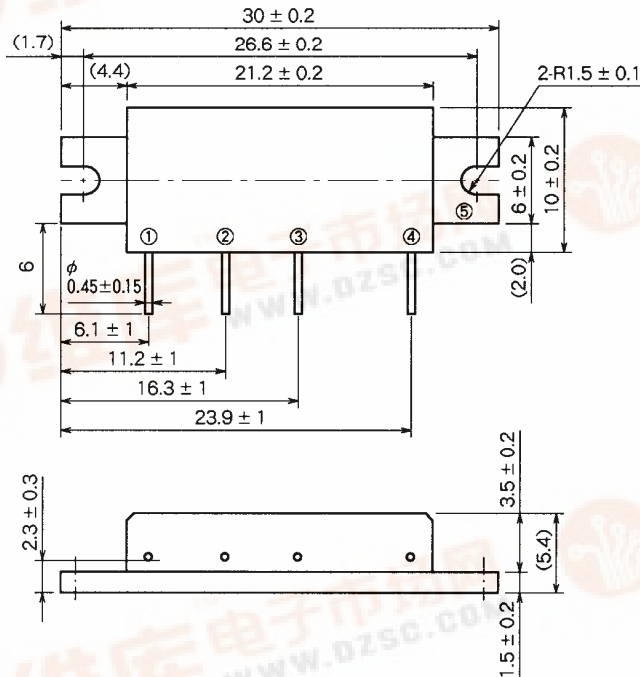


M68739R

154-162MHz, 9.6V, 7W FM PORTABLE RADIO

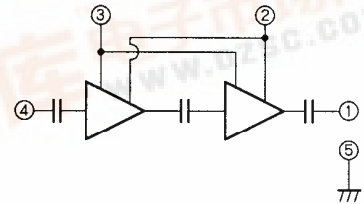
OUTLINE DRAWING

Dimensions in mm



H47

BLOCK DIAGRAM



PIN :

①Po : RF OUTPUT

②VDD : DRAIN BIAS SUPPLY

③VGG : GATE BIAS SUPPLY

④Pin : RF INPUT

⑤GND : 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	16	V
V _{GG}	Gate bias voltage		4	V
P _{in}	Input power	f = 154 to 162MHz, Z _G = Z _L = 50Ω	30	mW
P _o	Output power	f = 154 to 162MHz, Z _G = Z _L = 50Ω	10	W
T _{C(OP)}	Operation case temperature	f = 154 to 162MHz, Z _G = Z _L = 50Ω	- 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 = 50Ω, unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range		154	162	MHz
P _o	Output power		7		W
η _T	Total efficiency	V _{DD} = 9.6V	50		%
2f _o	2nd. harmonic	V _{GG} = 3.5V		- 20	dBc
3f _o	3rd. harmonic	P _{in} = 20mW		- 30	dBc
ρ _{in}	Input VSWR			3	-
-	Stability	Z _G = 50Ω, V _{DD} = 4.8 to 16V, Load VSWR < 4.4 : 1	No parasitic oscillation		-
-	Load VSWR tolerance	V _{DD} = 13.2V, P _{in} = 20mW, P _o = 7W(V _{GG} Adjust), Z _L = 20 : 1	No degradation or destroy		-

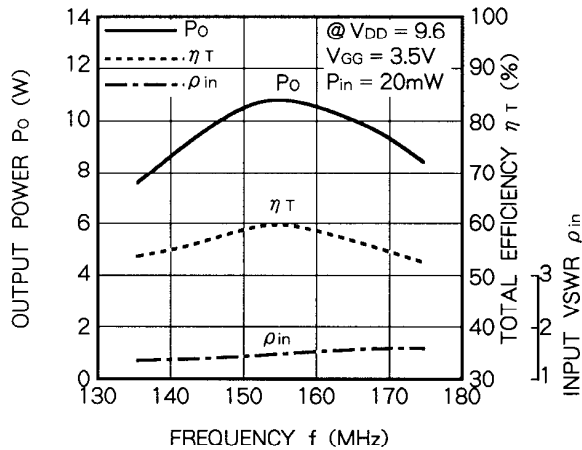
Note : Above parameters, ratings, limits and conditions are subject to change.

M68739R

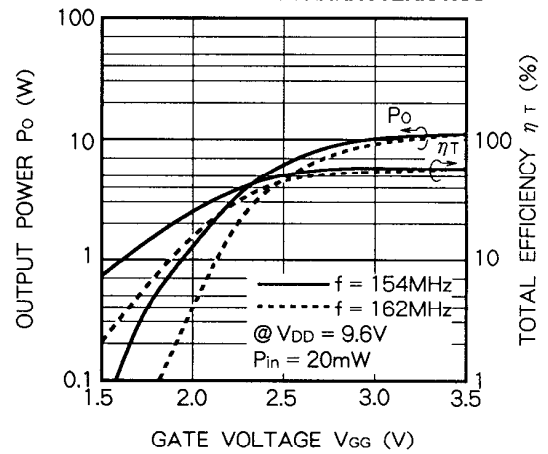
154-162MHz, 9.6V, 7W FM PORTABLE RADIO

TYPICAL PERFORMANCE DATA

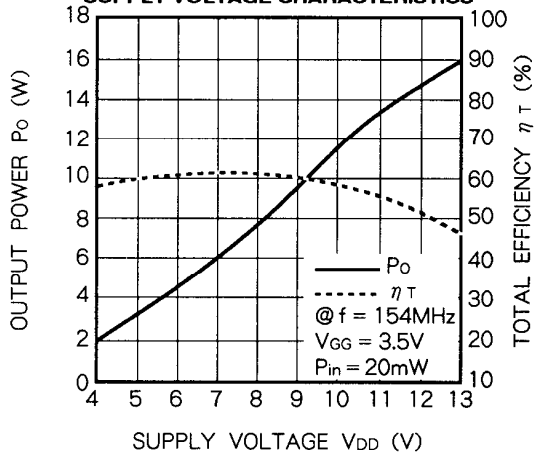
OUTPUT POWER, TOTAL EFFICIENCY, INPUT VSWR
VS. FREQUENCY CHARACTERISTICS



OUTPUT POWER, TOTAL EFFICIENCY
VS. GATE VOLTAGE CHARACTERISTICS



OUTPUT POWER, TOTAL EFFICIENCY VS.
SUPPLY VOLTAGE CHARACTERISTICS



OUTPUT POWER, TOTAL EFFICIENCY VS.
SUPPLY VOLTAGE CHARACTERISTICS

