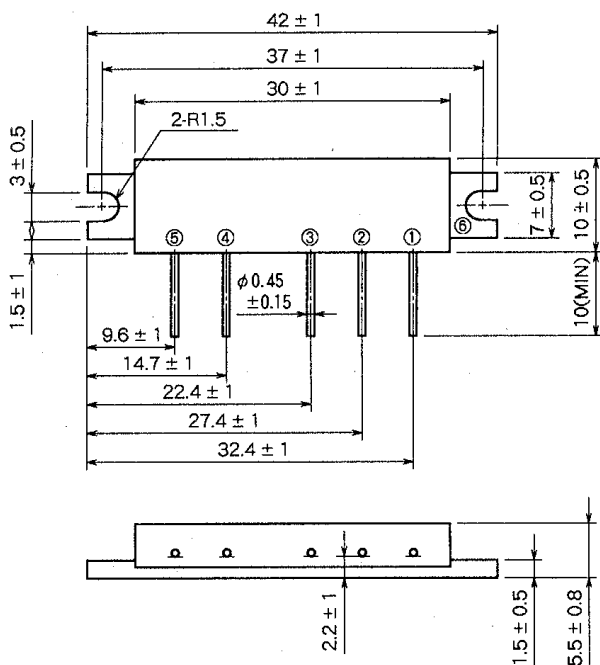


M67749MR

430-450MHz, 12.5V, 7W, FM PORTABLE RADIO

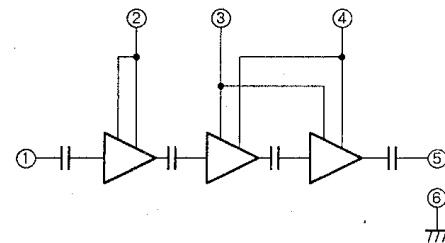
OUTLINE DRAWING

Dimensions in mm



H27R

BLOCK DIAGRAM



PIN :

- ① Pin : RF INPUT
- ② Vcc1 : 1st. DC SUPPLY
- ③ VBB : BASE BIAS SUPPLY
- ④ Vcc2 : 2nd. DC SUPPLY
- ⑤ Po : RF OUTPUT
- ⑥ GND : FIN

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

Symbol	Parameter	Conditions	Ratings	Unit
Vcc	Supply voltage	VBB ≤ 5V	16	V
VBB	Base bias	Vcc ≤ 12.5V	6	V
Icc	Total current		4	A
P _{in(max)}	Input power	Z _G = Z _L = 50 Ω, Vcc1 ≤ 12.5V	40	mW
P _{o(max)}	Output power	Z _G = Z _L = 50 Ω	10	W
T _{c(OP)}	Operation case temperature		-30 to 110	°C
T _{stg}	Storage temperature		-40 to 110	°C

Note. Above parameters are guaranteed independently.

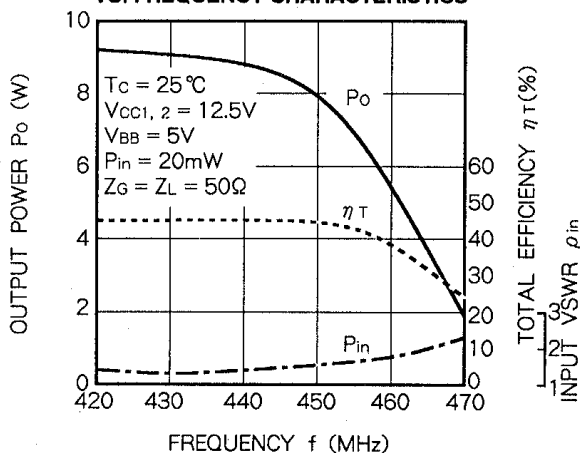
ELECTRICAL CHARACTERISTICS (Tc = 25°C unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range	P _{in} = 20mW VBB = 5V Vcc1,2 = 12.5V Z _G = Z _L = 50 Ω	430	450	MHz
P _o	Output power		7		W
η _T	Total efficiency		38		%
2fo	2nd. harmonic			-25	dBc
3fo	3rd. harmonic			-30	dBc
ρ _{in}	Input VSWR			2.5	-
-	Load VSWR tolerance	Vcc2 = 13.2V, VBB = 5V, P _{in} = 20mW P _o = 7W (Vcc1 : controlled) Load VSWR=20:1(All phase), 2sec. Z _G = 50Ω	No degradation or destroy		-

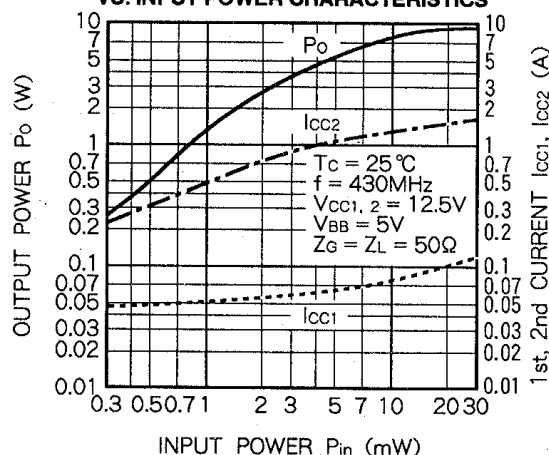
Note. Above parameters, ratings, limits and conditions are subject to change.

TYPICAL PERFORMANCE DATA

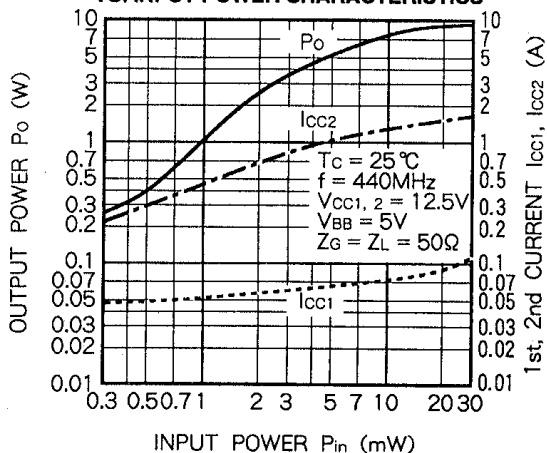
OUTPUT POWER, TOTAL EFFICIENCY, INPUT VSWR VS. FREQUENCY CHARACTERISTICS



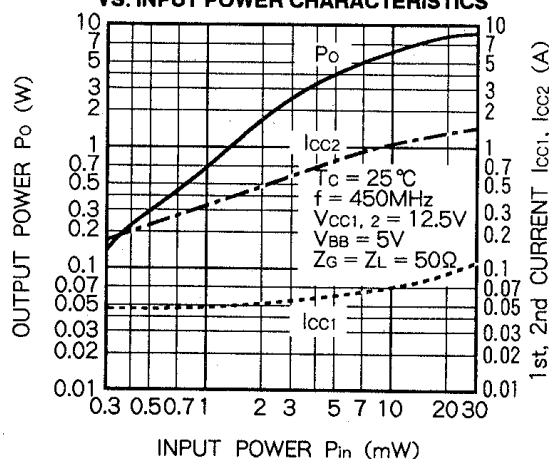
OUTPUT POWER, 1st, 2nd CURRENT VS. INPUT POWER CHARACTERISTICS



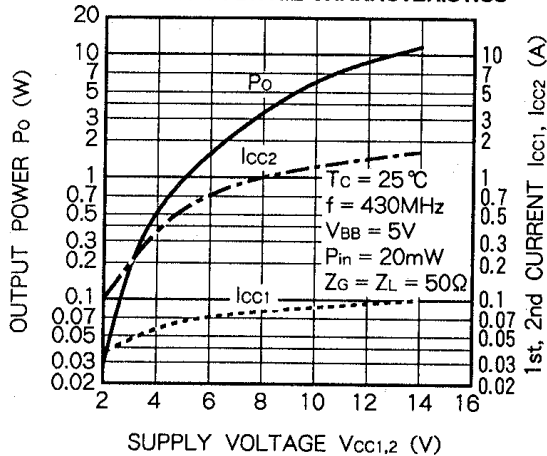
OUTPUT POWER, 1st, 2nd CURRENT VS. INPUT POWER CHARACTERISTICS



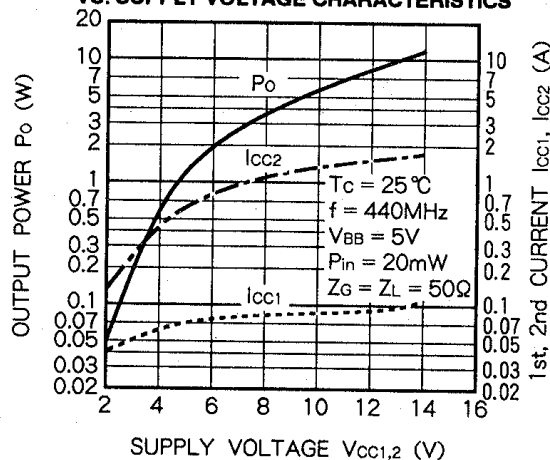
OUTPUT POWER, 1st, 2nd CURRENT VS. INPUT POWER CHARACTERISTICS



OUTPUT POWER, 1st, 2nd CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS



OUTPUT POWER, 1st, 2nd CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS



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