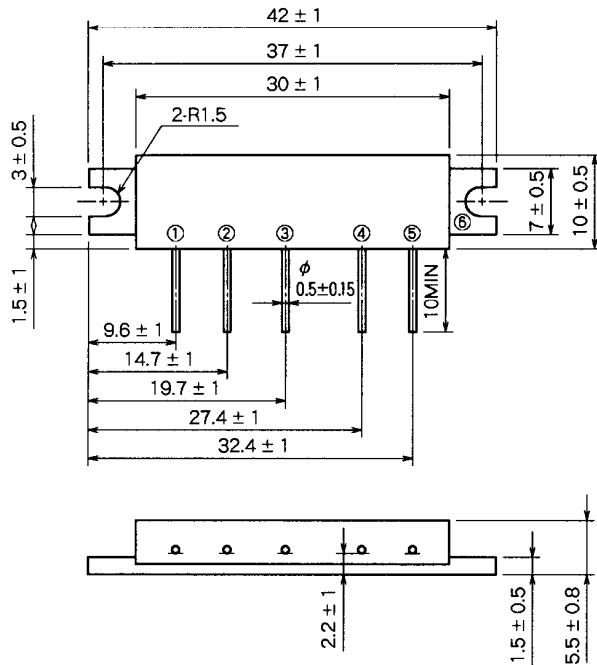


M67748L

135-150MHz, 12.5V, 7W, FM PORTABLE RADIO

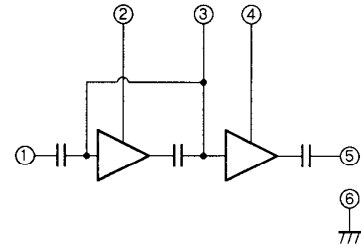
OUTLINE DRAWING

Dimensions in mm



H27

BLOCK DIAGRAM



PIN :

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

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

Symbol	Parameter	Conditions	Ratings	Unit
V _{cc}	Supply voltage	V _{BB} = 5V	15	V
V _{BB}	Base bias		5.5	V
I _{cc}	Total current		4	A
P _{in(max)}	Input power	Z _G = Z _L = 50 Ω, V _{cc1} ≤ 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.

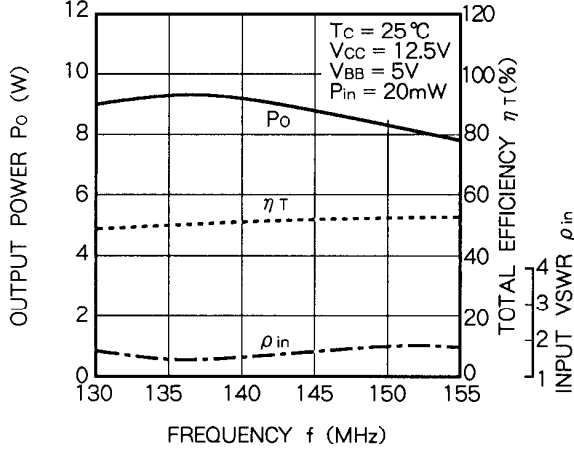
ELECTRICAL CHARACTERISTICS (T_c = 25 °C unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range		135	150	MHz
P _o	Output power	P _{in} = 20mW	7		W
η _T	Total efficiency	V _{BB} = 5V	45		%
2f _o	2nd. harmonic	V _{cc} = 12.5V		- 20	dBc
3f _o	3rd. harmonic	Z _G = Z _L = 50 Ω		- 25	dBc
ρ _{in}	Input VSWR			2.5	-
-	Load VSWR tolerance	V _{cc2} = 13.2V, V _{BB} = 5V P _o = 7W(V _{cc1} : controlled)P _{in} = 20mW Load VSWR=20:1 (All phase), 2sec. Z _G = 50Ω	No degradation or destroy		-

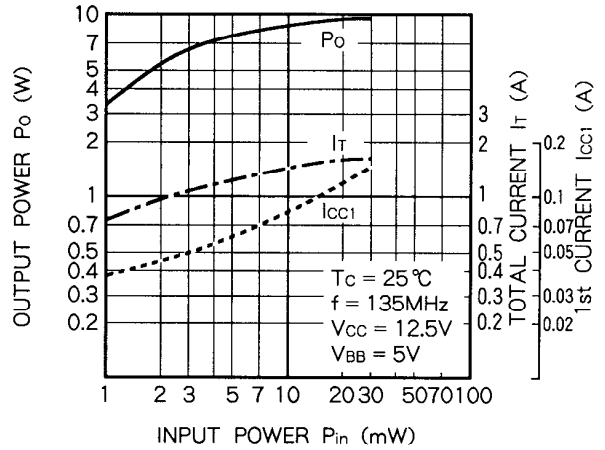
Note. Above parameters, ratings, limits and conditions are subject to change.

TYPICAL PERFORMANCE DATA

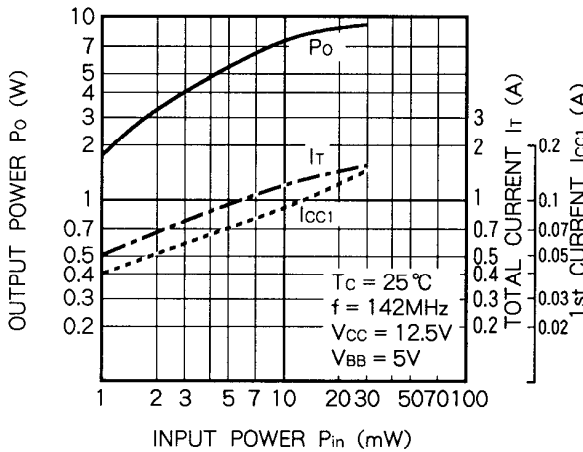
OUTPUT POWER, TOTAL EFFICIENCY, ρ_{in} VS. FREQUENCY CHARACTERISTICS



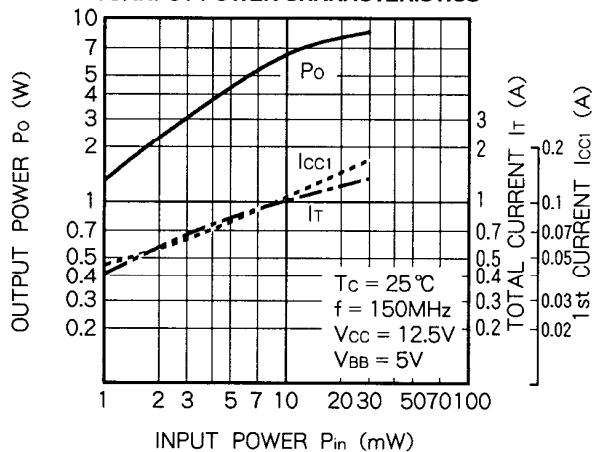
OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS. INPUT POWER CHARACTERISTICS



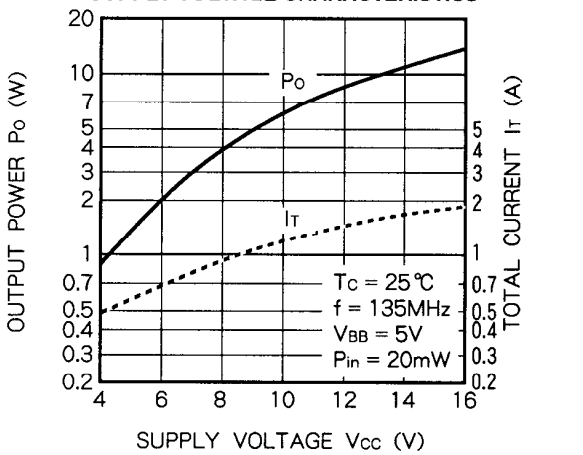
OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS. INPUT POWER CHARACTERISTICS



OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS. INPUT POWER CHARACTERISTICS



OUTPUT POWER, TOTAL CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS



OUTPUT POWER, TOTAL CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS

