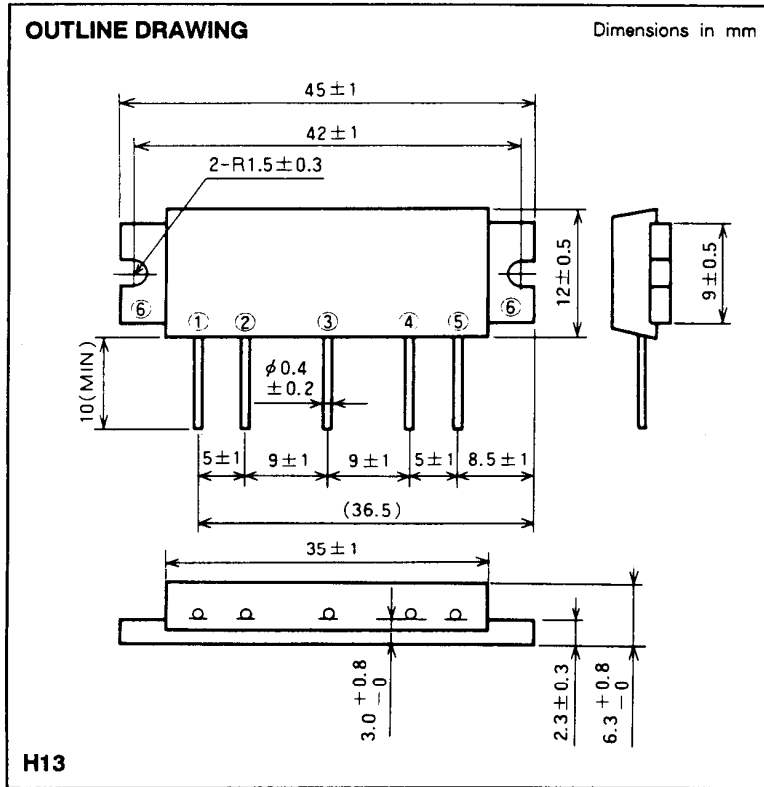
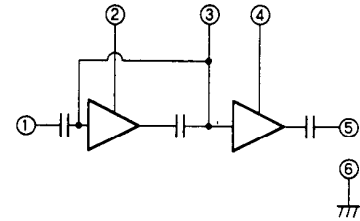


M67785

184-200MHz, 9.6V, 5W, FM PORTABLE RADIO



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		13	V
VBB	Base bias		5.5	V
Icc	Total current		4	A
P _{in(max)}	Input power	Z _G = Z _L = 50 Ω, Vcc1 ≤ 9.6V	30	mW
P _{O(max)}	Output power	Z _G = Z _L = 50 Ω	7	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.

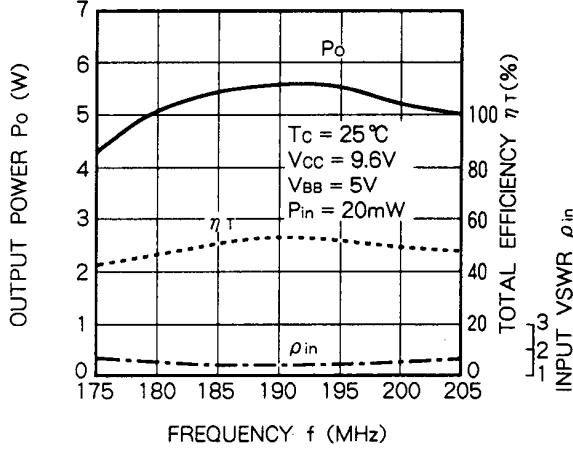
ELECTRICAL CHARACTERISTICS (Tc = 25°C unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range		184	200	MHz
P _O	Output power	P _{in} = 20mW	5		W
η _T	Total efficiency	V _{BB} = 5V	40		%
2f _o	2nd. harmonic	Vcc = 9.6V		- 20	dBc
3f _o	3rd. harmonic	Z _G = Z _L = 50 Ω		- 25	dBc
ρ _{in}	Input VSWR			2.5	-
-	Load VSWR tolerance	Vcc2 = 13V, VBB = 5V, P _{in} = 20mW P _O = 5W (Vcc1 : controlled) Load VSWR=20:1 (All phase), 2sec. Z _G = 50 Ω	No degradation or destroy		-

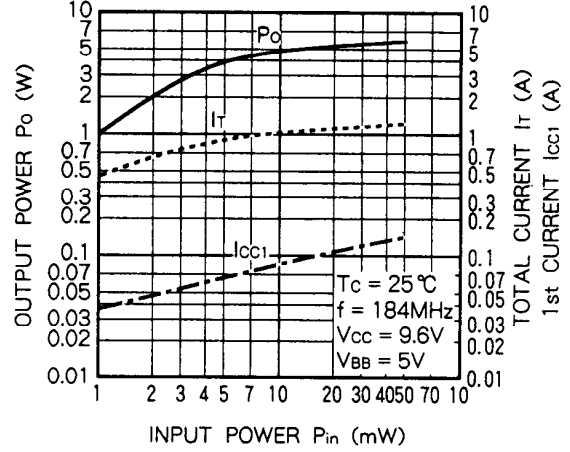
Note. Above parameters, ratings, limits and conditions are subject to change.

TYPICAL PERFORMANCE DATA

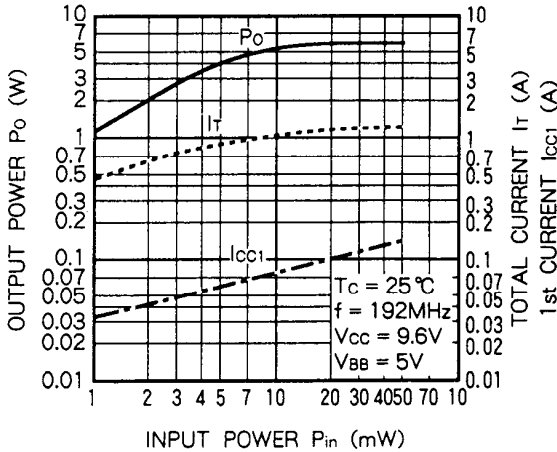
OUTPUT POWER, TOTAL EFFICIENCY, ρ_{in} VS. FREQUENCY CHARACTERISTICS



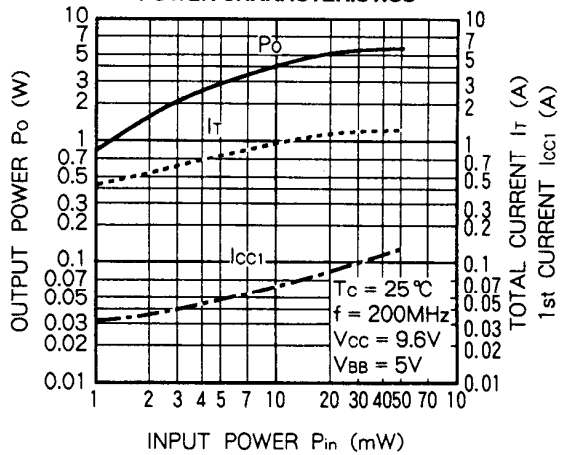
OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS. INPUT POWER CHARACTERISTICS



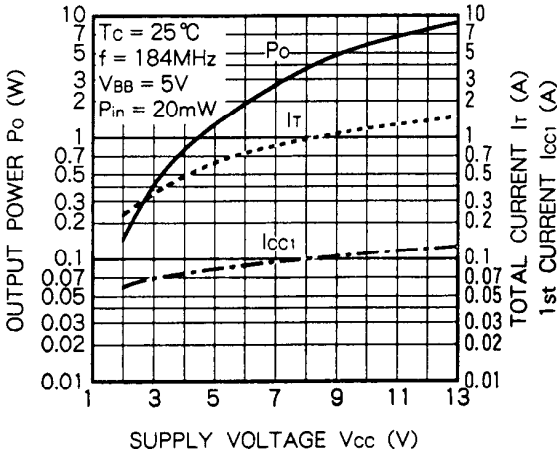
OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS. INPUT POWER CHARACTERISTICS



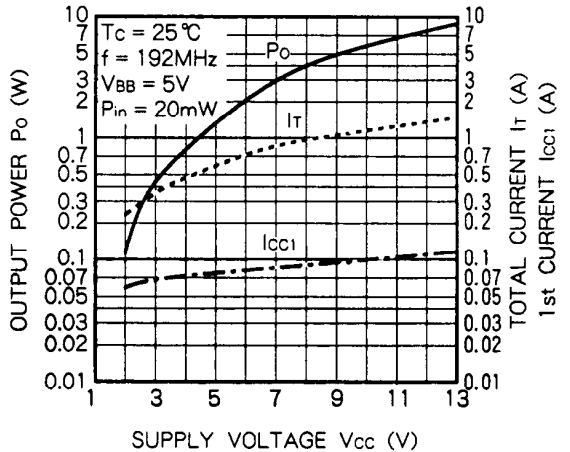
OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS. INPUT POWER CHARACTERISTICS



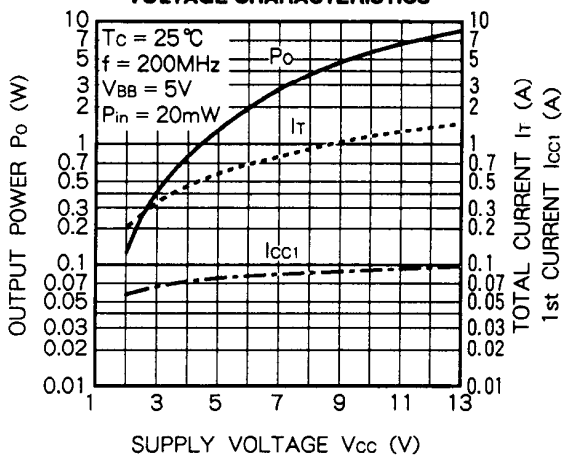
OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS



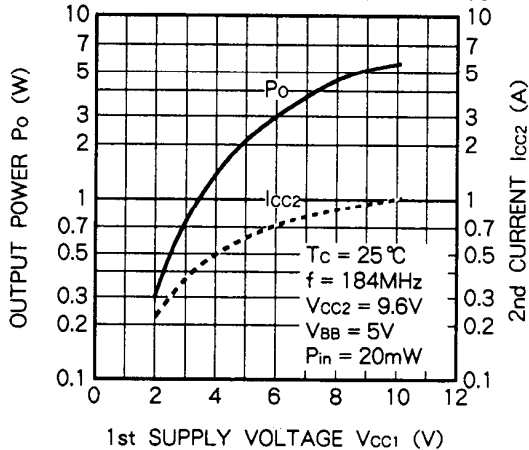
OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS



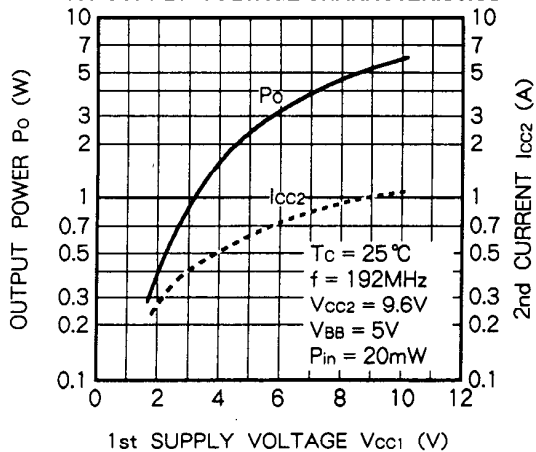
OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS



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



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



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

