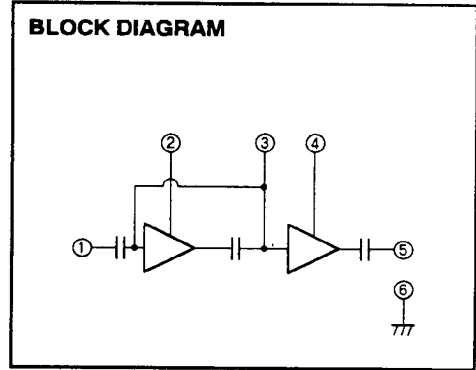
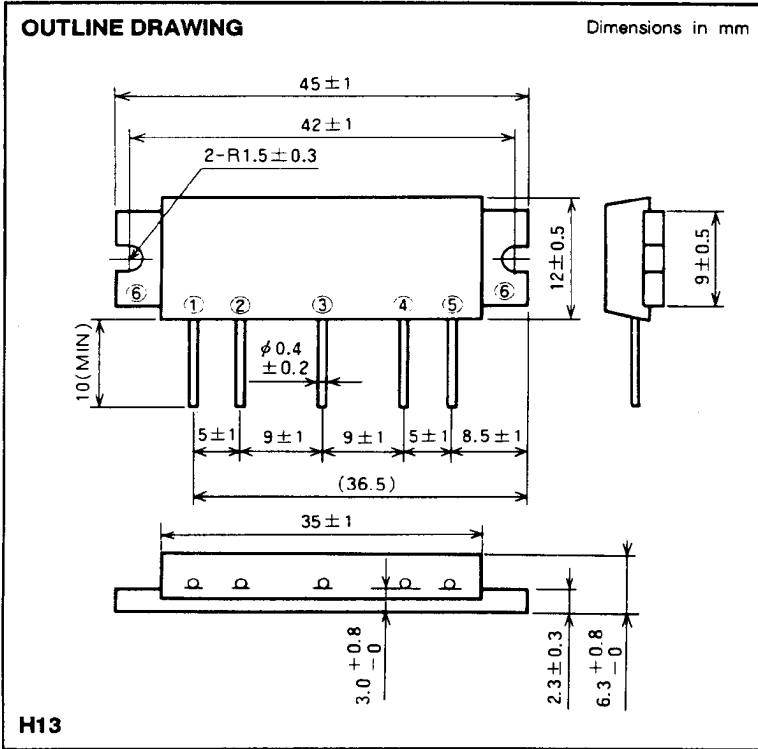


# M67785

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



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** (T<sub>c</sub> = 25 °C unless otherwise noted)

Symbol	Parameter	Conditions	Ratings	Unit
V <sub>cc</sub>	Supply voltage		13	V
V <sub>BB</sub>	Base bias		5.5	V
I <sub>cc</sub>	Total current		4	A
P <sub>in(max)</sub>	Input power	Z <sub>G</sub> = Z <sub>L</sub> = 50 Ω, V <sub>cc1</sub> ≤ 9.6V	30	mW
P <sub>o(max)</sub>	Output power	Z <sub>G</sub> = Z <sub>L</sub> = 50 Ω	7	W
T <sub>c(OP)</sub>	Operation case temperature		- 30 to 110	°C
T <sub>stg</sub>	Storage temperature		- 40 to 110	°C

Note. Above parameters are guaranteed independently.

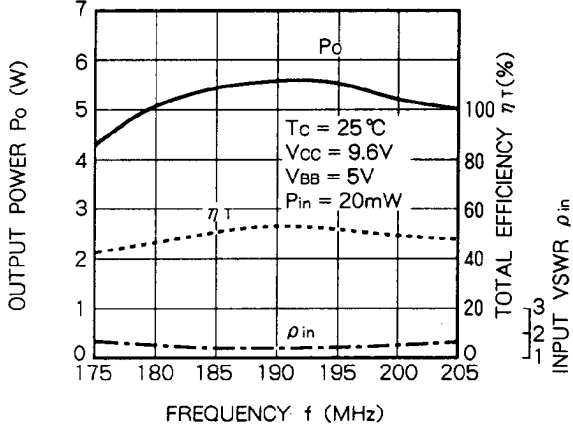
**ELECTRICAL CHARACTERISTICS** (T<sub>c</sub> = 25 °C unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range		184	200	MHz
P <sub>o</sub>	Output power	P <sub>in</sub> = 20mW	5		W
η <sub>T</sub>	Total efficiency	V <sub>BB</sub> = 5V	40		%
2f <sub>o</sub>	2nd. harmonic	V <sub>cc</sub> = 9.6V		- 20	dBc
3f <sub>o</sub>	3rd. harmonic	Z <sub>G</sub> = Z <sub>L</sub> = 50 Ω		- 25	dBc
ρ <sub>in</sub>	Input VSWR			2.5	-
-	Load VSWR tolerance	V <sub>cc2</sub> = 13V, V <sub>BB</sub> = 5V, P <sub>in</sub> = 20mW P <sub>o</sub> = 5W (V <sub>cc1</sub> : controlled) Load VSWR=20:1 (All phase), 2sec. Z <sub>G</sub> = 50 Ω	No degradation or destroy		-

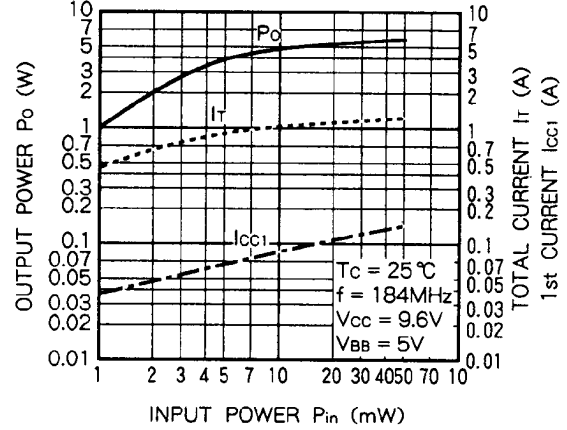
Note. Above parameters, ratings, limits and conditions are subject to change.

TYPICAL PERFORMANCE DATA

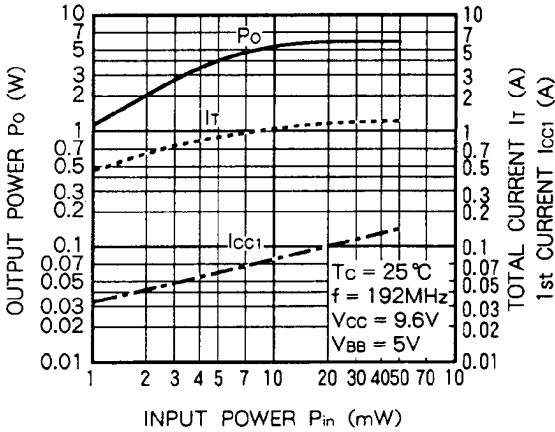
OUTPUT POWER, TOTAL EFFICIENCY,  $\rho_{in}$  VS. FREQUENCY CHARACTERISTICS



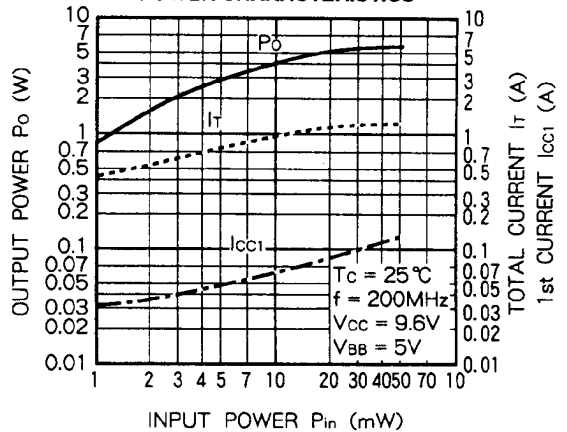
OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS. INPUT POWER CHARACTERISTICS



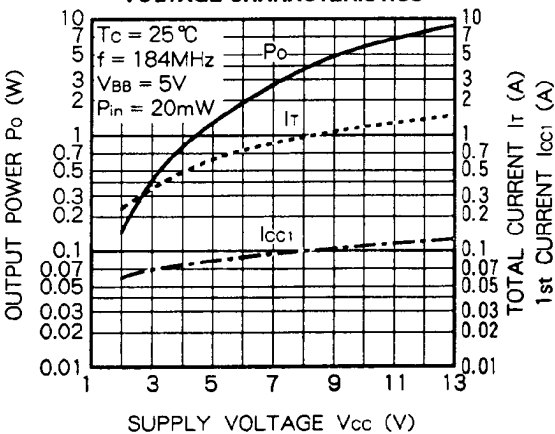
OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS. INPUT POWER CHARACTERISTICS



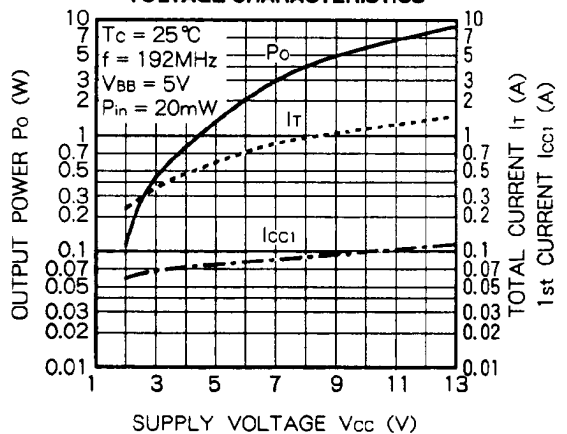
OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS. INPUT POWER CHARACTERISTICS



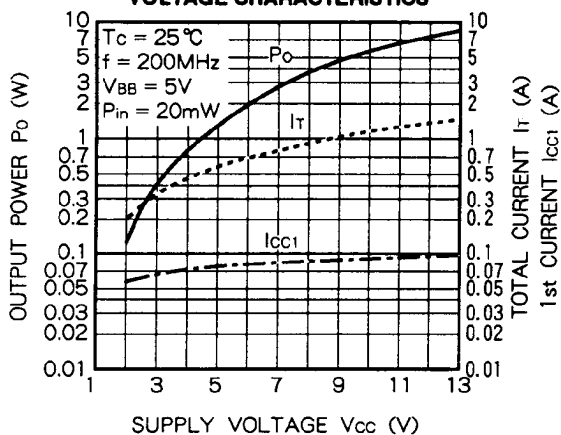
OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS



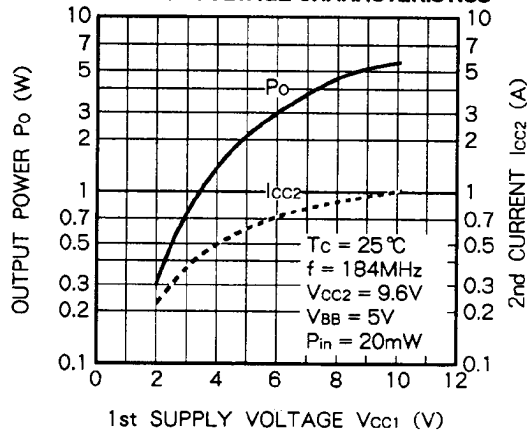
OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS



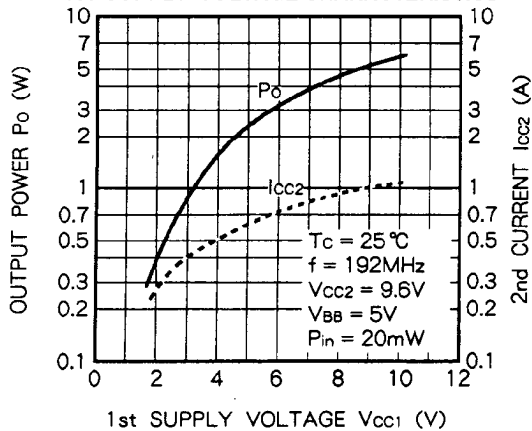
**OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS**



**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**

