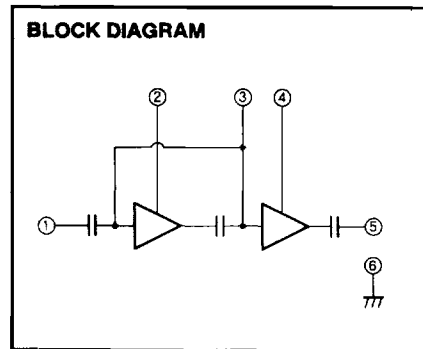
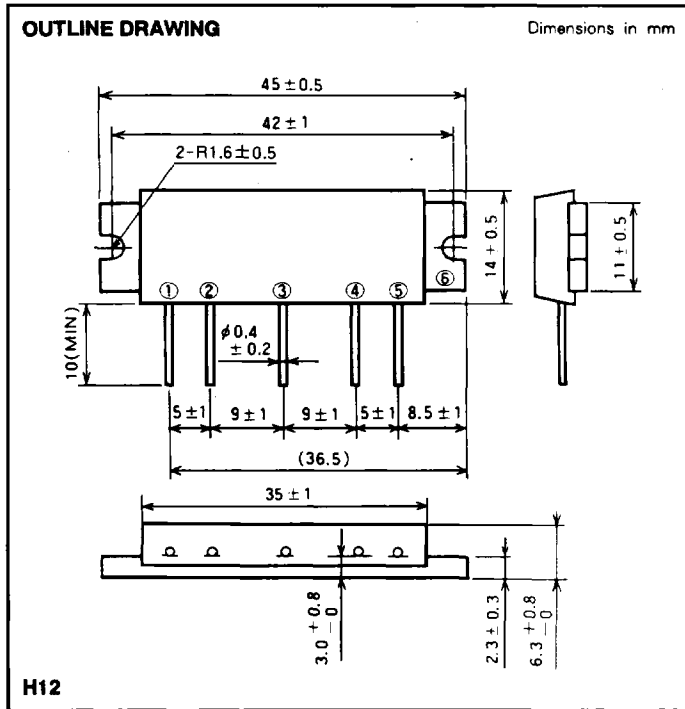


# M57785L

135-150MHz, 7.2V, 7W, 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** (Tc = 25 °C unless otherwise noted)

Symbol	Parameter	Conditions	Ratings	Unit
Vcc	Supply voltage		9	V
VBB	Base bias		6	V
Icc	Total current		4	A
P <sub>in(max)</sub>	Input power	V <sub>cc1</sub> = 7.2V, Z <sub>G</sub> = Z <sub>L</sub> = 50 Ω	80	mW
P <sub>o(max)</sub>	Output power	Z <sub>G</sub> = Z <sub>L</sub> = 50 Ω	10	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** (Tc = 25 °C unless otherwise noted)

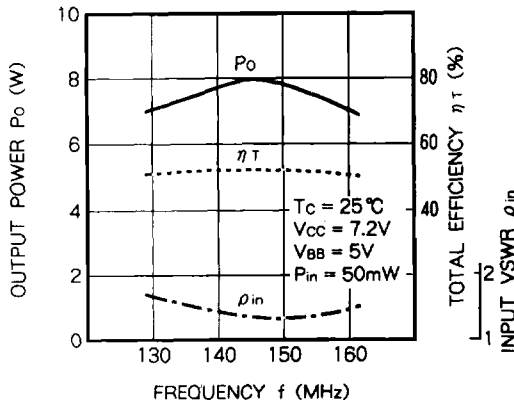
Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range	V <sub>cc1</sub> = V <sub>cc2</sub> = 7.2V V <sub>BB</sub> = 5V P <sub>in</sub> = 50mW Z <sub>G</sub> = Z <sub>L</sub> = 50 Ω	135	150	MHz
P <sub>o</sub>	Output power		7		W
η <sub>T</sub>	Total efficiency		40		%
2f <sub>o</sub>	2nd. harmonic			- 20	dBc
3f <sub>o</sub>	3rd. harmonic			- 30	dBc
ρ <sub>in</sub>	Input VSWR			2.5	-
-	Load VSWR tolerance		V <sub>cc1</sub> = V <sub>cc2</sub> = 7.2V, V <sub>BB</sub> = 5V P <sub>o</sub> = 7W (P <sub>in</sub> : controlled) Load VSWR ≥ 20 : 1 (All phase) Z <sub>G</sub> = 50Ω	No degradation or destroy	

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

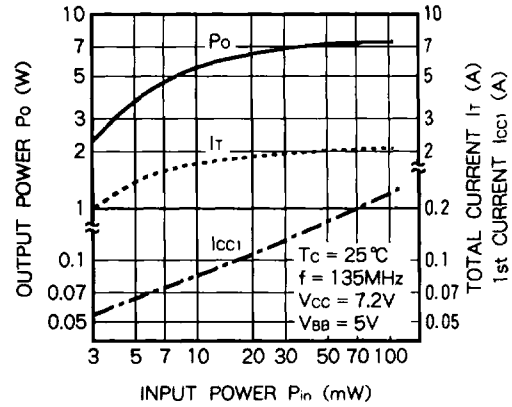


TYPICAL PERFORMANCE DATA

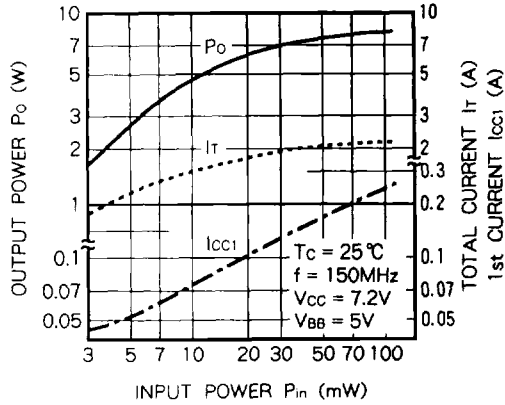
OUTPUT POWER, TOTAL EFFICIENCY,  $\rho_{in}$  VS. FREQUENCY CHARACTERISTICS



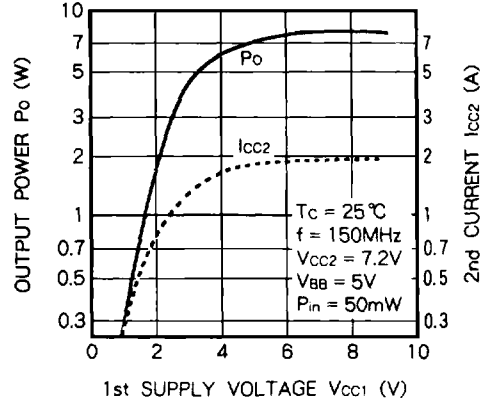
OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS. INPUT POWER CHARACTERISTICS



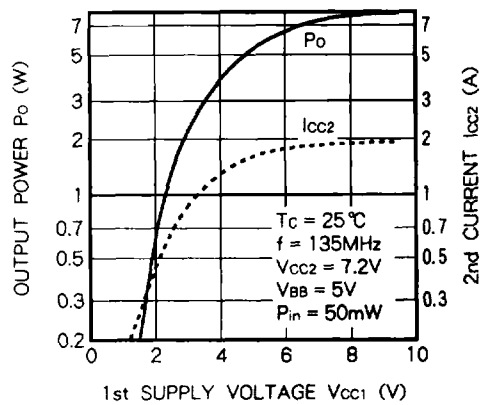
OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS. INPUT POWER CHARACTERISTICS



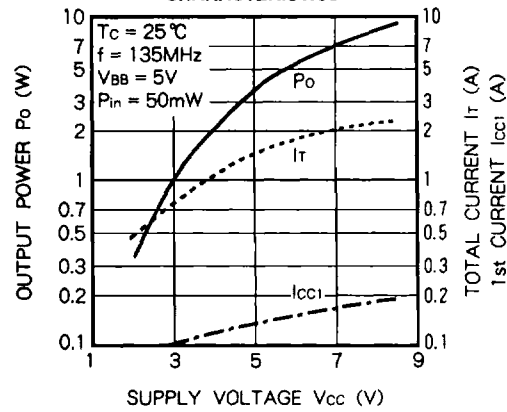
OUTPUT POWER, 2nd CURRENT VS. 1st SUPPLY VOLTAGE CHARACTERISTICS



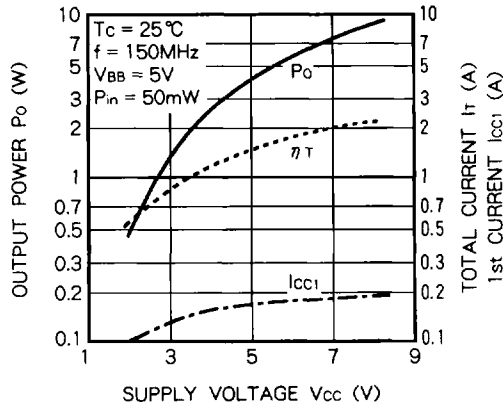
OUTPUT POWER, 2nd CURRENT VS. 1st SUPPLY VOLTAGE CHARACTERISTICS



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



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



**2nd, 3rd HARMONICS VS.  
FREQUENCY CHARACTERISTICS**

