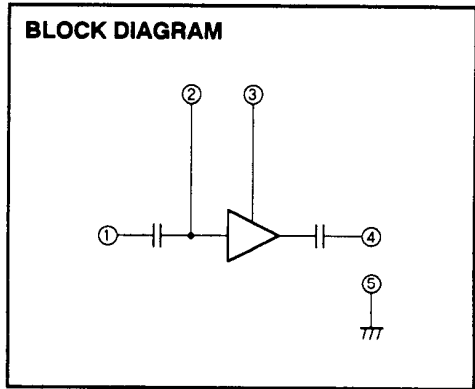
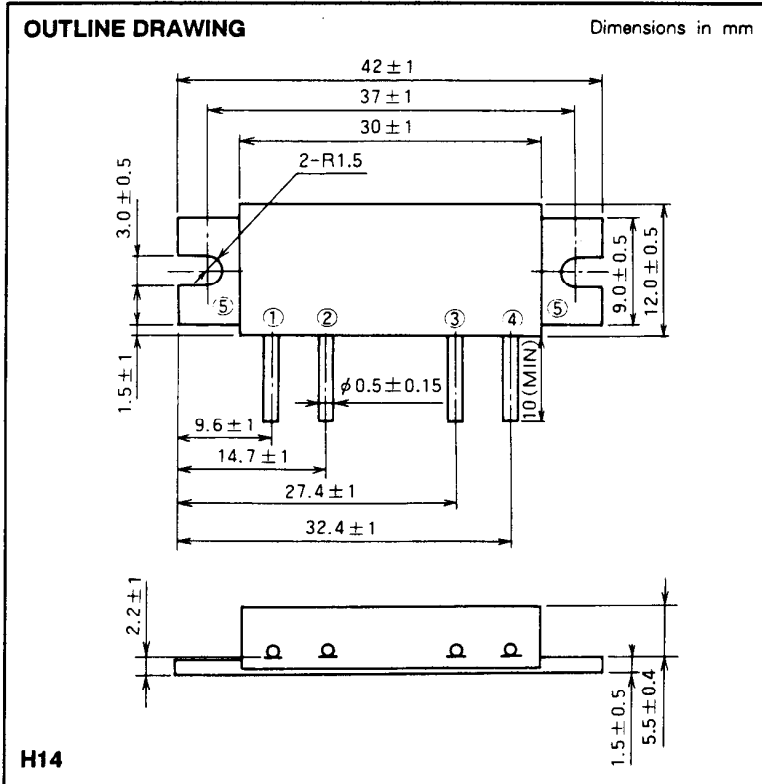


# M67713

220-225MHz, 12.5V, 7W, FM PORTABLE RADIO



- PIN :
- ① Pin : RF INPUT
  - ② V<sub>BB</sub> : BASE BIAS SUPPLY
  - ③ V<sub>CC1</sub> : DC SUPPLY
  - ④ P<sub>o</sub> : RF OUTPUT
  - ⑤ 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		16	V
V <sub>BB</sub>	Base bias		6	V
I <sub>CC</sub>	Total current		3	A
P <sub>in(max)</sub>	Input power	Z <sub>G</sub> = Z <sub>L</sub> = 50 Ω, V <sub>CC</sub> ≤ 12.5V	1	W
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.

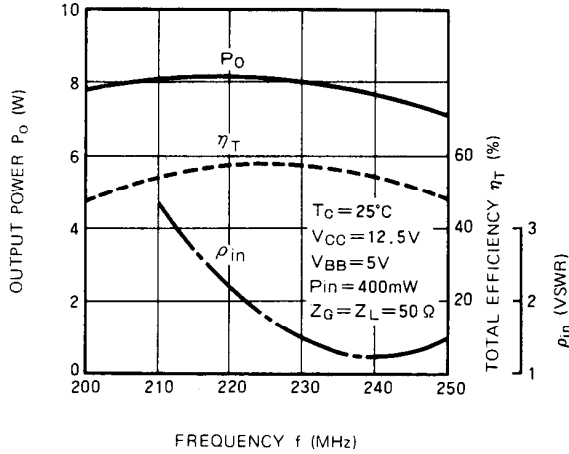
**ELECTRICAL CHARACTERISTICS** (T<sub>C</sub> = 25°C unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range	P <sub>in</sub> = 400mW V <sub>BB</sub> = 5V V <sub>CC</sub> = 12.5V Z <sub>G</sub> = Z <sub>L</sub> = 50 Ω	220	225	MHz
P <sub>o</sub>	Output power		7		W
η <sub>T</sub>	Total efficiency		45		%
2f <sub>o</sub>	2nd. harmonic			- 25	dBc
3f <sub>o</sub>	3rd. harmonic			- 30	dBc
ρ <sub>in</sub>	Input VSWR			2.5	-
-	Load VSWR tolerance	V <sub>CC2</sub> = 13.2V, V <sub>BB</sub> = 5V P <sub>o</sub> = 7W (P <sub>in</sub> : controlled) Load VSWR=20:1(All phase), 2sec. Z <sub>G</sub> = 50Ω	No degradation or destroy		-

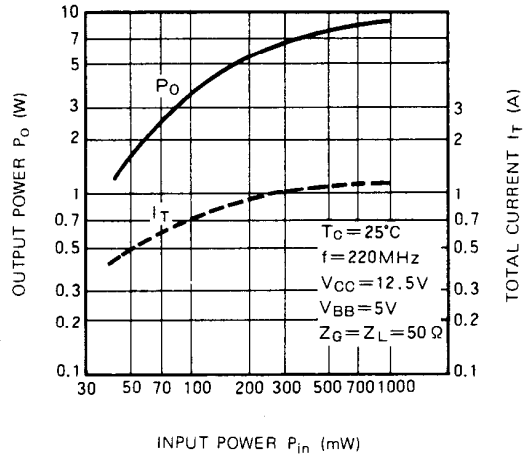
Note. Above parameters, ratings, limits and conditions are subject to change.

TYPICAL PERFORMANCE DATA

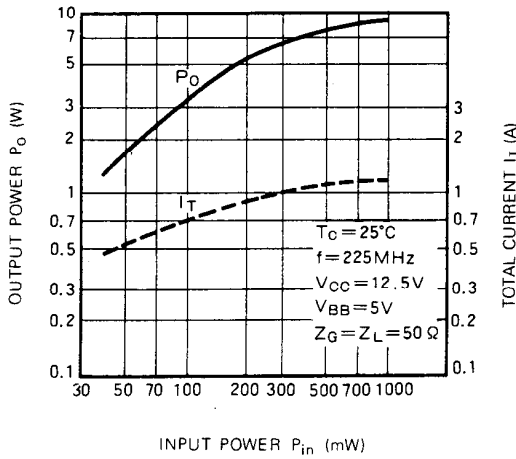
OUTPUT POWER, TOTAL EFFICIENCY,  $\rho_{in}$  VS. FREQUENCY CHARACTERISTICS



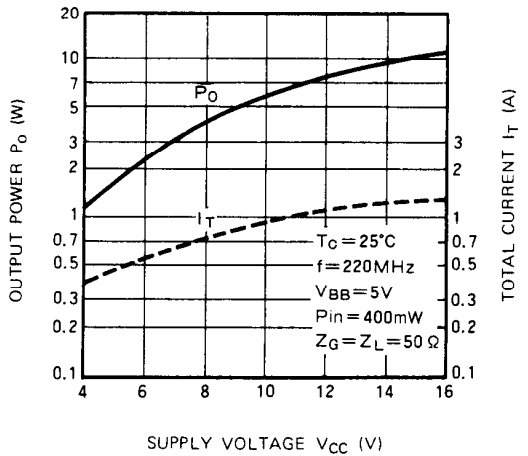
OUTPUT POWER, TOTAL CURRENT VS. INPUT POWER CHARACTERISTICS



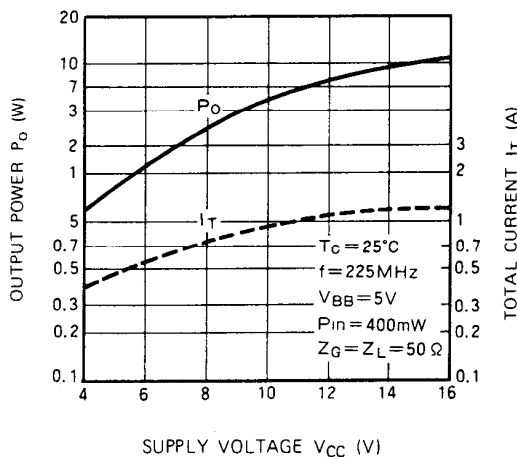
OUTPUT POWER, TOTAL CURRENT VS. INPUT POWER CHARACTERISTICS



OUTPUT POWER, TOTAL CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS



OUTPUT POWER, TOTAL CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS



2nd, 3rd HARMONIC VS. FREQUENCY CHARACTERISTICS

