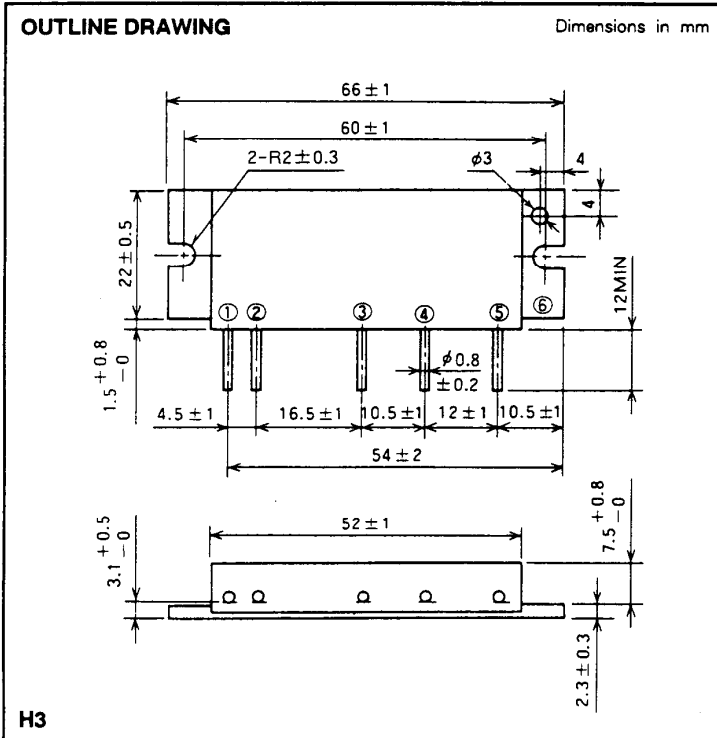
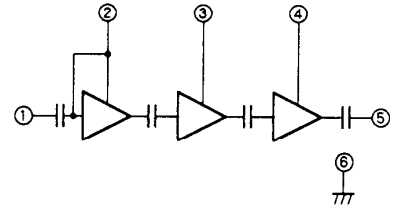


# M68706

250-270MHz, 12.5V, 30W, FM MOBILE RADIO



**BLOCK DIAGRAM**



- PIN :
- ① P<sub>in</sub> : RF INPUT
  - ② V<sub>cc1</sub> : 1st. DC SUPPLY
  - ③ V<sub>cc2</sub> : 2nd. DC SUPPLY
  - ④ V<sub>cc3</sub> : 3rd. DC SUPPLY
  - ⑤ P<sub>o</sub> : 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		17	V
I <sub>cc</sub>	Total current		10	A
P <sub>in(max)</sub>	Input power	V <sub>cc1</sub> ≤ 12.5V, Z <sub>G</sub> = Z <sub>L</sub> = 50 Ω	600	mW
P <sub>o(max)</sub>	Output power	Z <sub>G</sub> = Z <sub>L</sub> = 50 Ω	40	W
T <sub>c(OP)</sub>	Operation case temperature	Z <sub>G</sub> = Z <sub>L</sub> = 50 Ω	- 30 to 110	°C
T <sub>stg</sub>	Storage temperature		- 40 to 110	°C

Note. Above parameters are guaranteed independently.

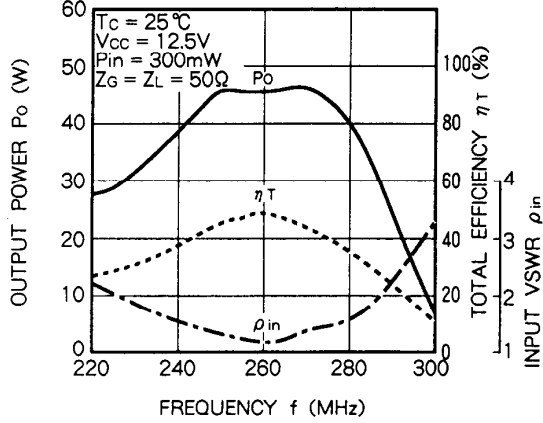
**ELECTRICAL CHARACTERISTICS** (T<sub>c</sub> = 25 °C unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range	V <sub>cc</sub> = 12.5V P <sub>in</sub> = 300mW Z <sub>G</sub> = Z <sub>L</sub> = 50Ω	250	270	MHz
P <sub>o</sub>	Output power		30		W
η <sub>T</sub>	Total efficiency		40		%
2f <sub>o</sub>	2nd. harmonic			- 30	dBc
3f <sub>o</sub>	3rd. harmonic			- 30	dBc
ρ <sub>in</sub>	Input VSWR		2.8	-	
-	Load VSWR tolerance	V <sub>cc</sub> = 15.2V P <sub>o</sub> = 30W(P <sub>in</sub> : controlled) Load VSWR = 20 : 1(All phase), Z <sub>G</sub> = 50Ω	No degradation or destroy		-

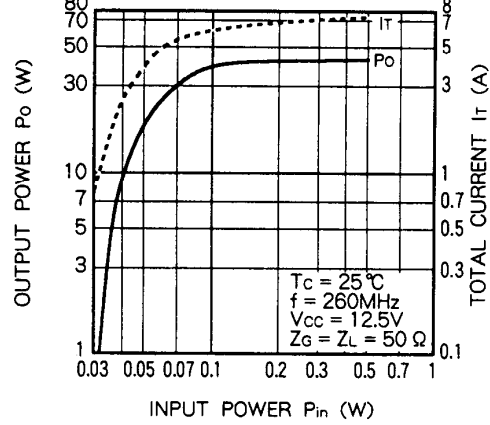
Note. Above parameters, ratings, limits and conditions are subject to change.

TYPICAL PERFORMANCE DATA

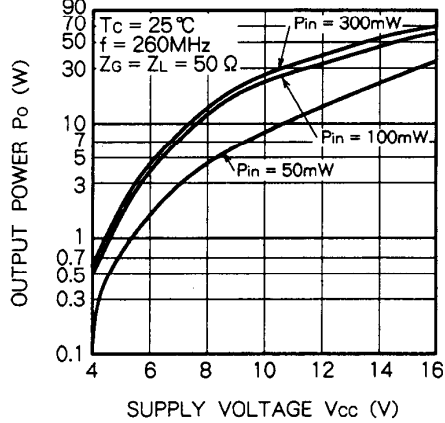
OUTPUT POWER, TOTAL EFFICIENCY, INPUT VSWR VS. FREQUENCY CHARACTERISTICS



OUTPUT POWER, TOTAL CURRENT vs. INPUT POWER CHARACTERISTICS



OUTPUT POWER VS. SUPPLY VOLTAGE CHARACTERISTICS



OUTPUT POWER VS. 1st SUPPLY VOLTAGE CHARACTERISTICS

