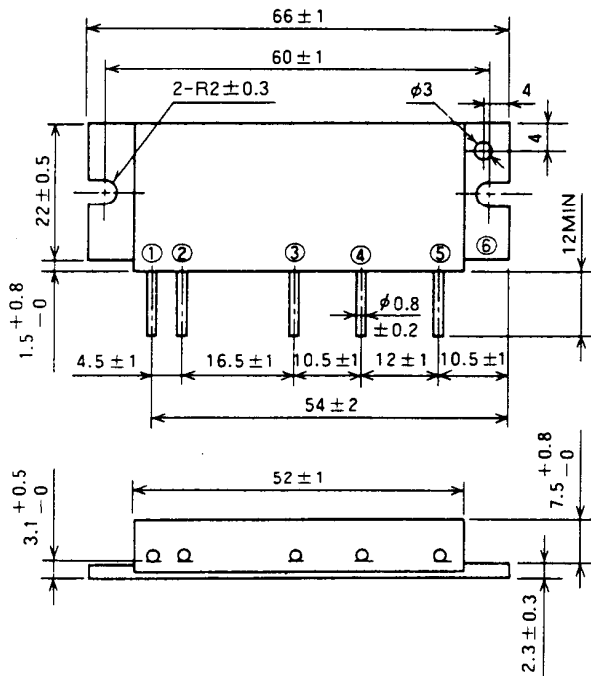


# M68706

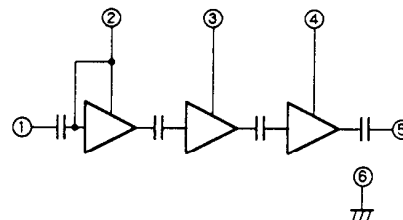
250-270MHz, 12.5V, 30W, FM MOBILE RADIO

### OUTLINE DRAWING

Dimensions in mm



### BLOCK DIAGRAM



PIN :

- ① Pin : RF INPUT
- ② Vcc1 : 1st. DC SUPPLY
- ③ Vcc2 : 2nd. DC SUPPLY
- ④ Vcc3 : 3rd. 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		17	V
Icc	Total current		10	A
P <sub>in(max)</sub>	Input power	Vcc1 ≤ 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.

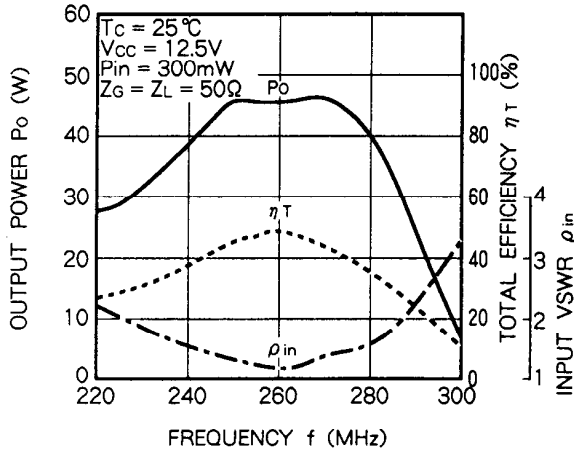
### ELECTRICAL CHARACTERISTICS (Tc = 25°C unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range	Vcc = 12.5V P <sub>in</sub> = 300mW Z <sub>G</sub> = Z <sub>L</sub> = 50 Ω	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	Vcc = 15.2V P <sub>o</sub> = 30W(P <sub>in</sub> : controlled) Load VSWR = 20 : 1(All phase), Z <sub>G</sub> = 50 Ω	No degradation or destroy		-

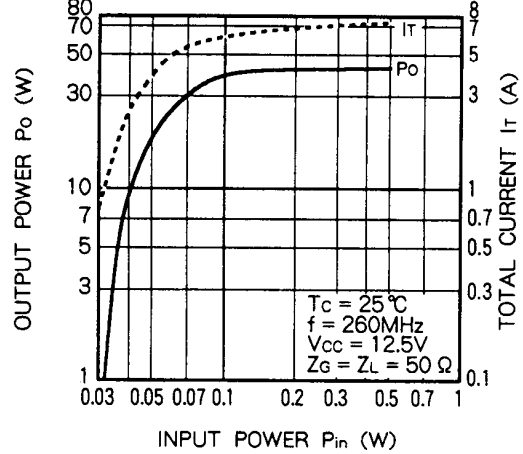
Note. Above parameters, ratings, limits and conditions are subject to change.

TYPICAL PERFORMANCE DATA

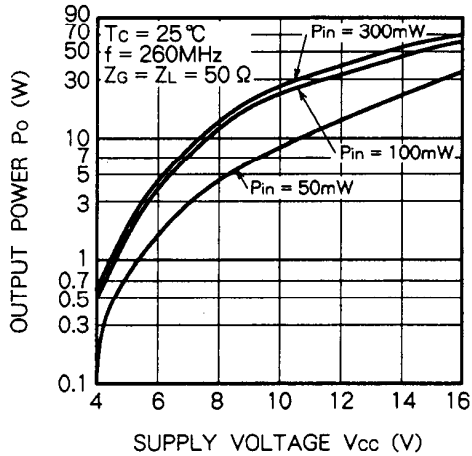
OUTPUT POWER, TOTAL EFFICIENCY, INPUT VSWR VS. FREQUENCY CHARACTERISTICS



OUTPUT POWER, TOTAL CURRENT VS. INPUT POWER CHARACTERISTICS



OUTPUT POWER VS. SUPPLY VOLTAGE CHARACTERISTICS



OUTPUT POWER VS. 1st SUPPLY VOLTAGE CHARACTERISTICS

