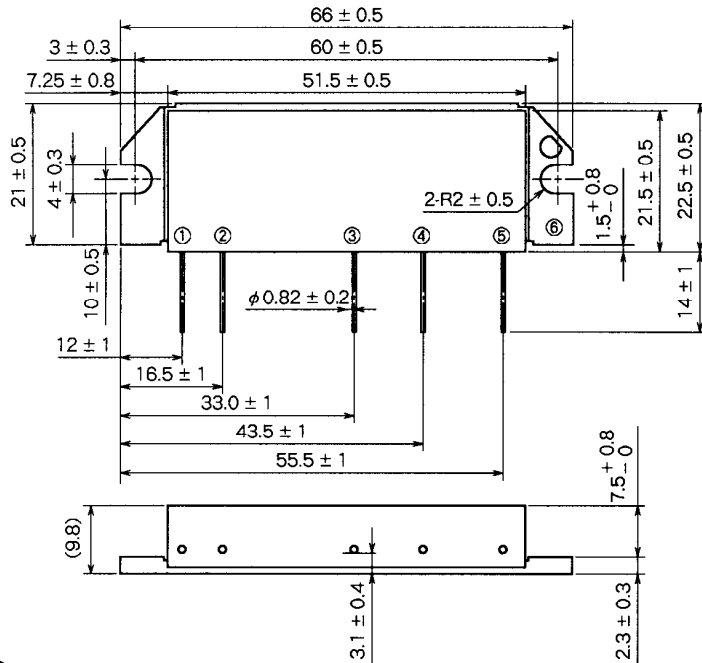


# M57788M

430-450MHz, 12.5V, 45W, FM MOBILE RADIO

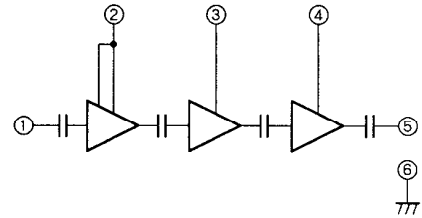
### OUTLINE DRAWING

Dimensions in mm



H3

### BLOCK DIAGRAM



PIN :

- ①Pin : RF INPUT
- ②Vcc1 : 1st. DC SUPPLY
- ③Vcc2 : 2nd. DC SUPPLY
- ④Vcc3 : 3rd. DC SUPPLY
- ⑤Po : RF OUTPUT
- ⑥GND : FIN

### ABSOLUTE MAXIMUM RATINGS (Tc = 25 °C unless otherwise noted)

Symbol	Parameter	Conditions	Ratings	Unit
Vcc1	Supply voltage		16	V
Vcc2,3			17	V
Icc	Total current		12	A
P <sub>in(max)</sub>	Input power	Z <sub>G</sub> = Z <sub>L</sub> = 50 Ω	0.6	W
P <sub>O(max)</sub>	Output power	Z <sub>G</sub> = Z <sub>L</sub> = 50 Ω	50	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.

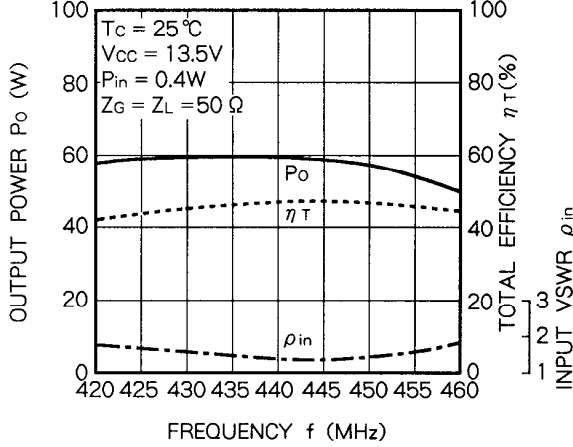
### ELECTRICAL CHARACTERISTICS (Tc = 25 °C unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range	P <sub>in</sub> = 0.4W V <sub>cc</sub> = 13.5V Z <sub>G</sub> = Z <sub>L</sub> = 50 Ω	430	450	MHz
P <sub>O</sub>	Output power		45		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			3.0	-
-	Load VSWR tolerance	V <sub>cc</sub> = 15.2V, P <sub>O</sub> = 45W (P <sub>in</sub> : controlled) Load VSWR=8.8:1(All phase), Z <sub>G</sub> = 50 Ω	No degradation or destroy		-

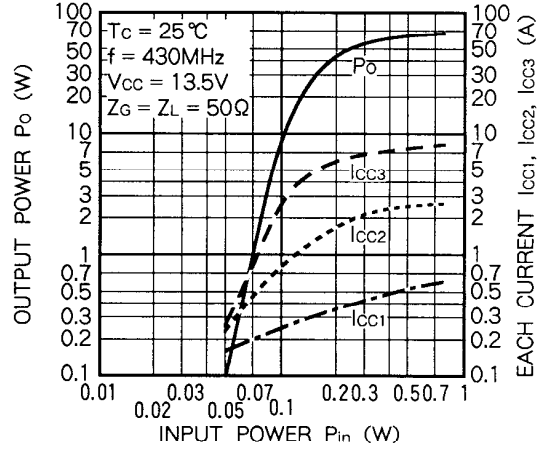
Note. Above parameters, ratings, limits and conditions are subject to change.

TYPICAL PERFORMANCE DATA

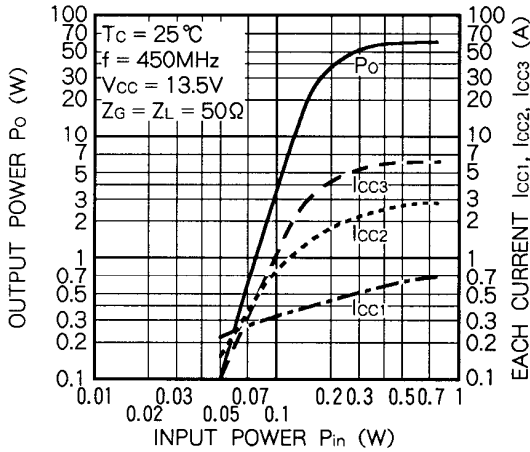
OUTPUT POWER, TOTAL EFFICIENCY, INPUT VSWR VS. FREQUENCY CHARACTERISTICS



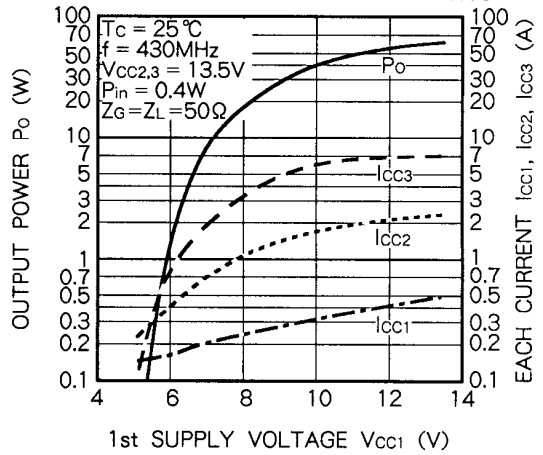
OUTPUT POWER, EACH CURRENT VS. INPUT POWER CHARACTERISTICS



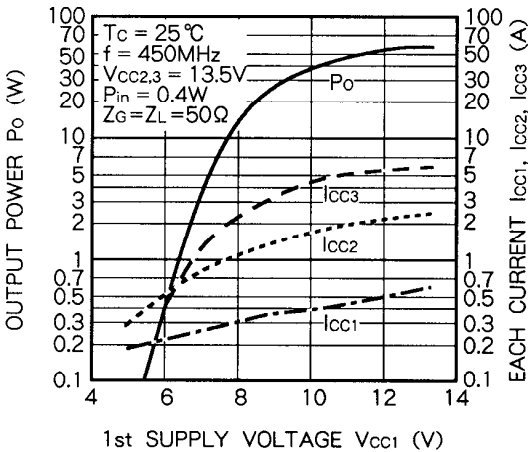
OUTPUT POWER, EACH CURRENT VS. INPUT POWER CHARACTERISTICS



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



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



OUTPUT POWER, EACH CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS

