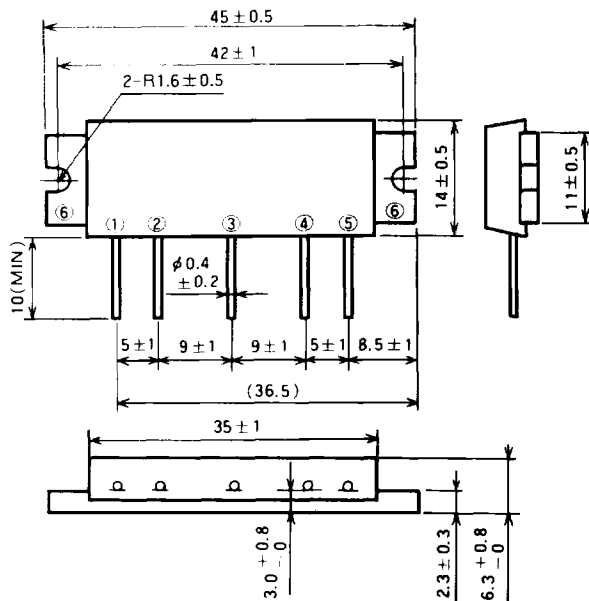


M57786M

430-470MHz, 7.2V, 7W, FM PORTABLE RADIO

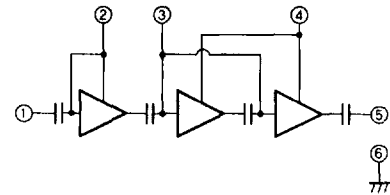
OUTLINE DRAWING

Dimensions in mm



H12

BLOCK DIAGRAM



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 (T_c = 25 °C unless otherwise noted)

Symbol	Parameter	Conditions	Ratings	Unit
V _{cc}	Supply voltage	V _{BB} ≤ 5V	10	V
V _{BB}	Base bias	V _{cc} ≤ 7.2V	6	V
I _{cc}	Total current		4	A
P _{in(max)}	Input power	Z _G = Z _L = 50 Ω	100	mW
P _{o(max)}	Output power	Z _G = Z _L = 50 Ω	10	W
T _{c(OP)}	Operation case temperature		- 30 to 110	°C
T _{stg}	Storage temperature		- 40 to 110	°C

Note. Above parameters are guaranteed independently.

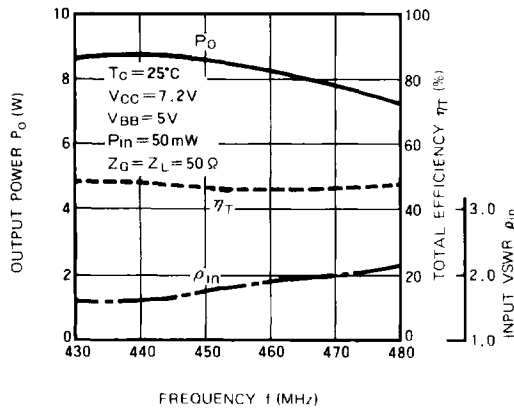
ELECTRICAL CHARACTERISTICS (T_c = 25 °C unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range		430	470	MHz
P _o	Output power	P _{in} = 50mW	7		W
η _T	Total efficiency	V _{BB} = 5V	40		%
2f _o	2nd. harmonic	V _{cc} = 7.2V		- 25	dBc
3f _o	3rd. harmonic	Z _G = Z _L = 50 Ω		- 30	dBc
ρ _{in}	Input VSWR			2.5	-
-	Load VSWR tolerance	V _{cc} = 7.2V, V _{BB} = 5V P _o = 7W (P _{in} : controlled) Load VSWR=20:1 (All phase), 2sec. Z _G = 50 Ω	No degradation or destroy		-

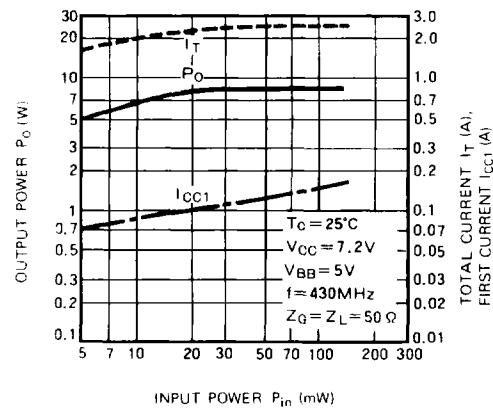
Note. Above parameters, ratings, limits and conditions are subject to change.

TYPICAL PERFORMANCE DATA

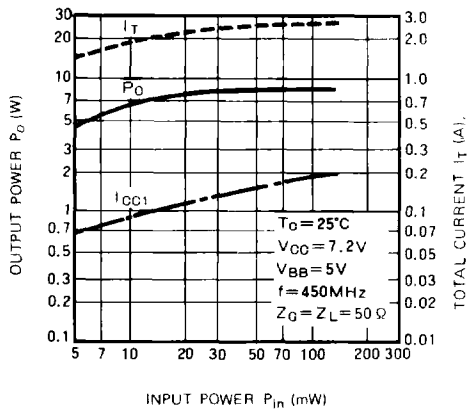
OUTPUT POWER, TOTAL EFFICIENCY,
INPUT VSWR VS. FREQUENCY
CHARACTERISTICS



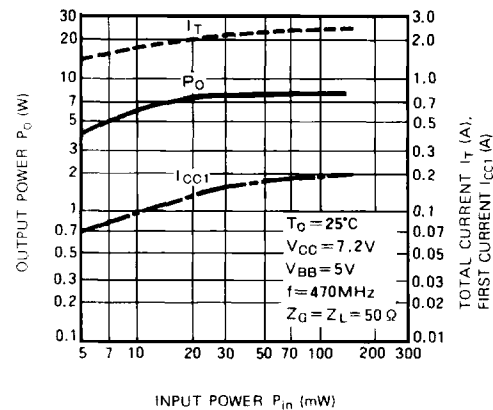
OUTPUT POWER, TOTAL CURRENT,
FIRST CURRENT VS.
INPUT POWER CHARACTERISTICS



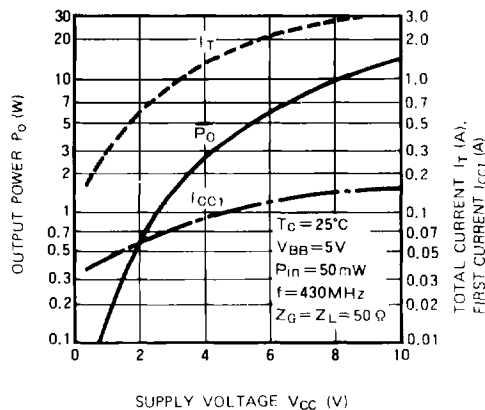
OUTPUT POWER, TOTAL CURRENT,
FIRST CURRENT VS.
INPUT POWER CHARACTERISTICS



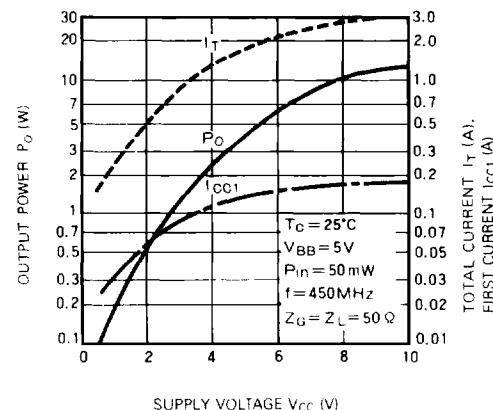
OUTPUT POWER, TOTAL CURRENT,
FIRST CURRENT VS.
INPUT POWER CHARACTERISTICS



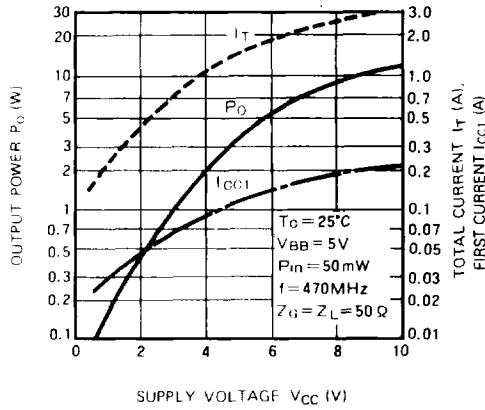
OUTPUT POWER, TOTAL CURRENT,
FIRST CURRENT VS.
SUPPLY VOLTAGE CHARACTERISTICS



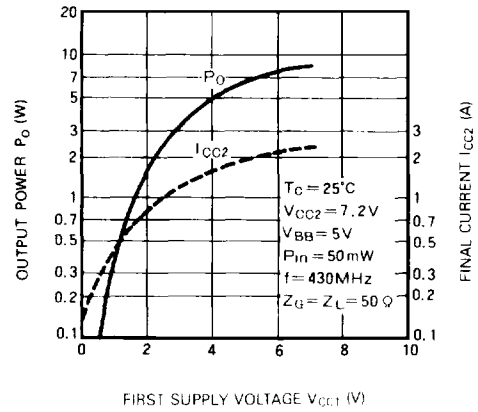
OUTPUT POWER, TOTAL CURRENT,
FIRST CURRENT VS.
SUPPLY VOLTAGE CHARACTERISTICS



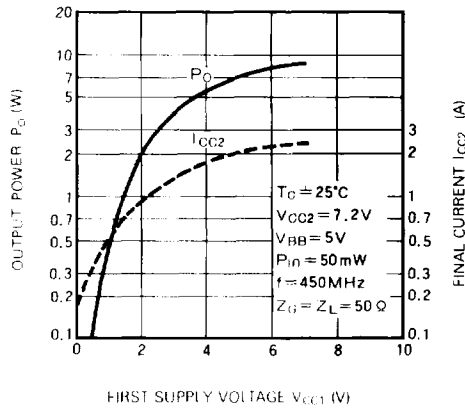
OUTPUT POWER, TOTAL CURRENT,
FIRST CURRENT VS.
SUPPLY VOLTAGE CHARACTERISTICS



OUTPUT POWER, FINAL CURRENT
VS. FIRST SUPPLY VOLTAGE
CHARACTERISTICS



OUTPUT POWER, FINAL CURRENT
VS. FIRST SUPPLY VOLTAGE
CHARACTERISTICS



OUTPUT POWER, FINAL CURRENT
VS. FIRST SUPPLY VOLTAGE
CHARACTERISTICS

