

RF Power Module

M57786M

430-470MHz

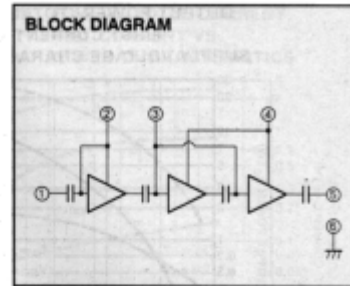
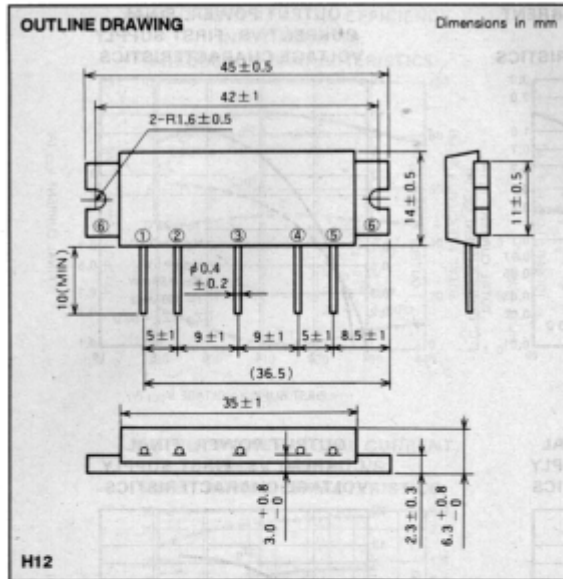
7,2V / 7W

DATASHEET

OEM –Mitsubishi

Source: Mitsubishi Databook 1995

MITSUBISHI RF POWER MODULE
M57786M
 430-470MHz, 7.2V, 7W, FM PORTABLE RADIO



PIN :
 ①Pin : RF INPUT
 ②Vcc1 : 1st. DC SUPPLY
 ③Vbb : BASE BIAS SUPPLY
 ④Vcc2 : 2nd. DC SUPPLY
 ⑤Po : RF OUTPUT
 ⑥GND : 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 ₀ = Z _L = 50 Ω	100	mW
P _{o(max)}	Output power	Z ₀ = 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 ₀	2nd. harmonic	V _{cc} = 7.2V		- 25	dBc
3f ₀	3rd. harmonic	Z ₀ = 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 ₀ = 50 Ω	No degradation or destroy		-

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

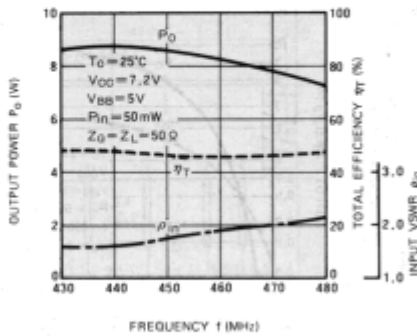
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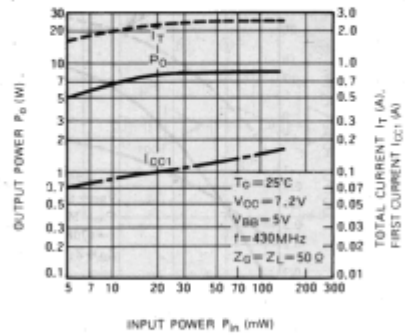
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TYPICAL PERFORMANCE DATA

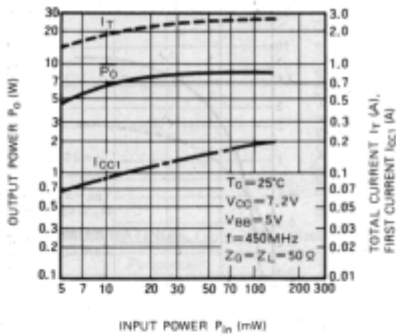
OUTPUT POWER, TOTAL EFFICIENCY, INPUT VSWR VS. FREQUENCY CHARACTERISTICS



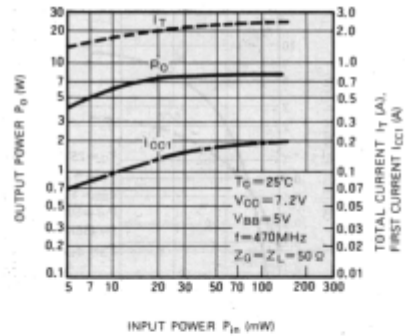
OUTPUT POWER, TOTAL CURRENT, FIRST CURRENT VS. INPUT POWER CHARACTERISTICS



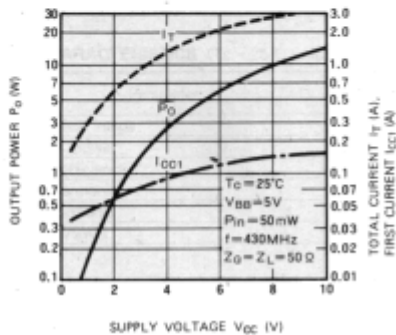
OUTPUT POWER, TOTAL CURRENT, FIRST CURRENT VS. INPUT POWER CHARACTERISTICS



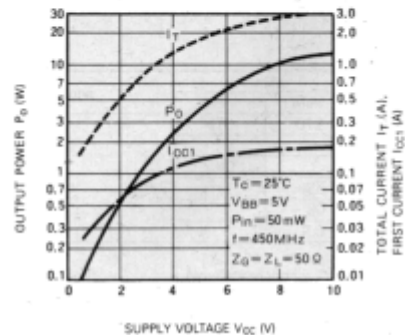
OUTPUT POWER, TOTAL CURRENT, FIRST CURRENT VS. INPUT POWER CHARACTERISTICS



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



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

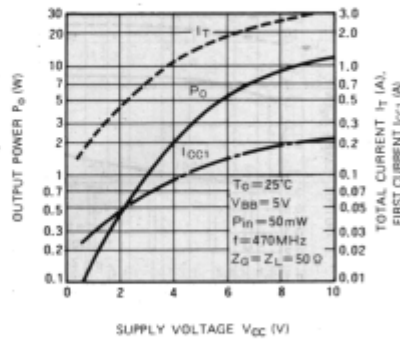


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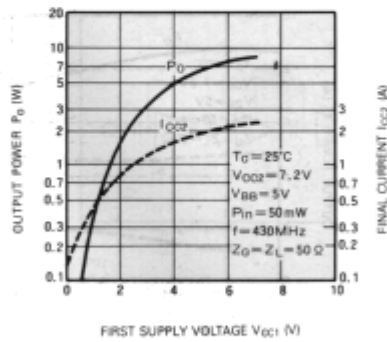
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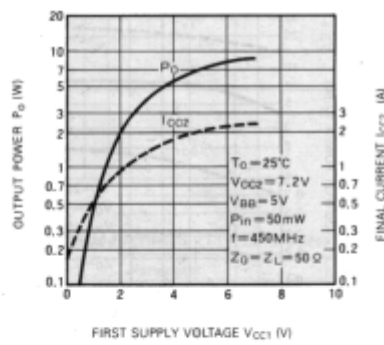
OUTPUT POWER, TOTAL CURRENT, FIRST CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS



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

