

RF Power Module

M57783H

150-175MHz

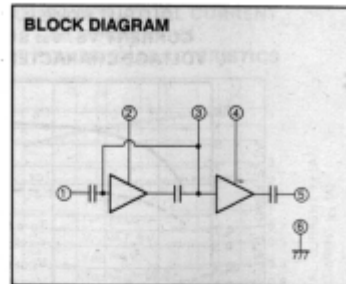
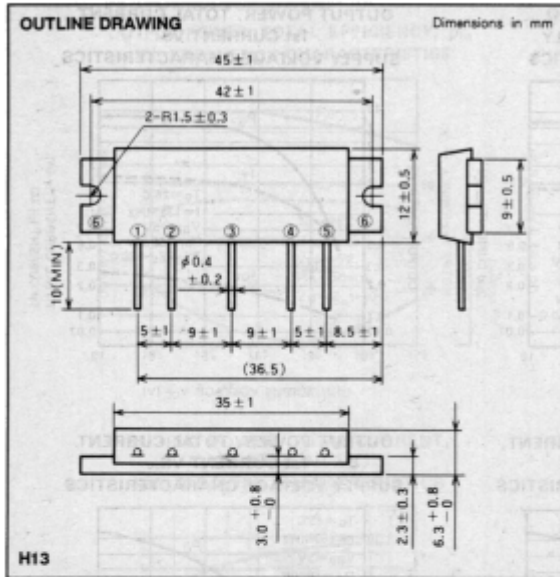
7,5V / 7W

DATASHEET

OEM –Mitsubishi

Source: Mitsubishi Databook 1995

MITSUBISHI RF POWER MODULE
M57783H
150-175MHz, 7.5V, 7W, FM PORTABLE RADIO



- PIN :
- ① P_{in} : RF INPUT
 - ② V_{cc1} : 1st. DC SUPPLY
 - ③ V_{bb} : BASE BIAS SUPPLY
 - ④ V_{cc2} : 2nd. DC SUPPLY
 - ⑤ P_o : RF OUTPUT
 - ⑥ GND : FIN

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

Symbol	Parameter	Conditions	Ratings	Unit
V _{cc}	Supply voltage		9	V
V _{bb}	Base bias		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		150	175	MHz
P _o	Output power	P _{in} = 50mW	7		W
η _T	Total efficiency	V _{bb} = 5V	45		%
2f ₀	2nd. harmonic	V _{cc} = 7.5V		-20	dBc
3f ₀	3rd. harmonic	Z ₀ = Z _L = 50 Ω		-30	dBc
ρ _{in}	Input VSWR			2.5	-
-	Load VSWR tolerance	V _{cc} = 13V, 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.

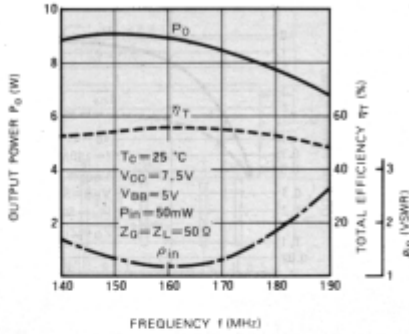
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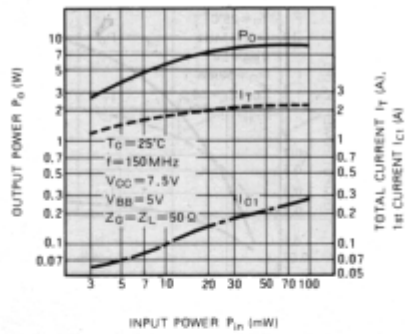
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TYPICAL PERFORMANCE DATA

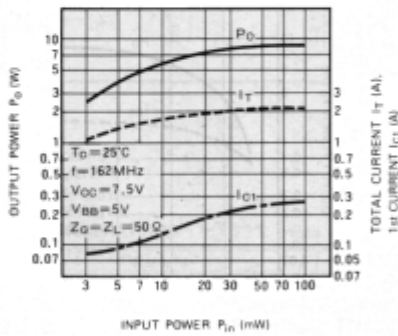
OUTPUT POWER, TOTAL EFFICIENCY, P_{in} VS. FREQUENCY CHARACTERISTICS



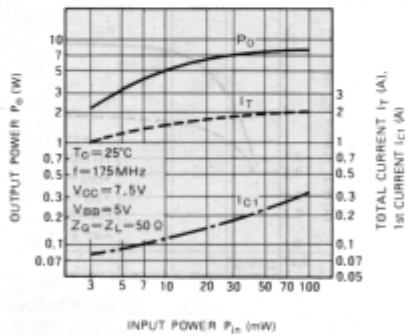
OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS. INPUT POWER CHARACTERISTICS



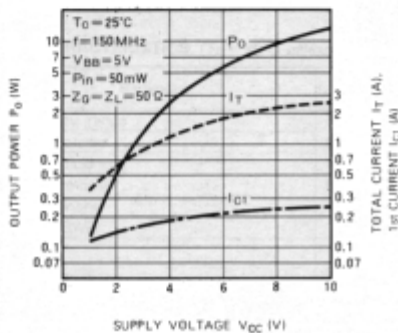
OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS. INPUT POWER CHARACTERISTICS



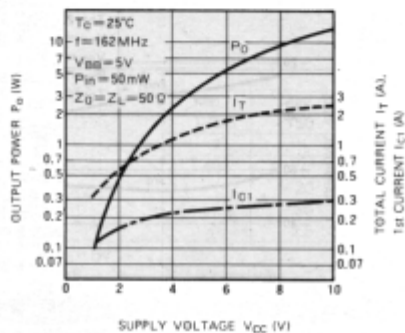
OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS. INPUT POWER CHARACTERISTICS



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



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

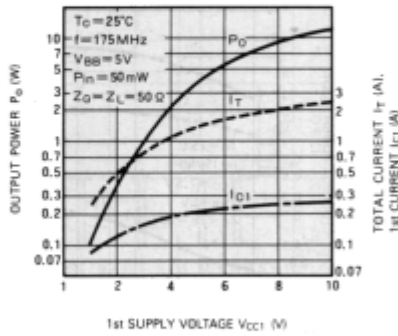


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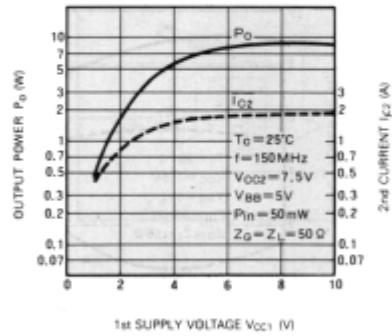
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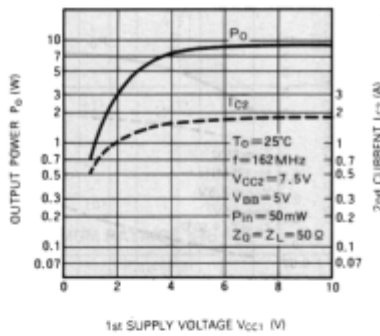
OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS



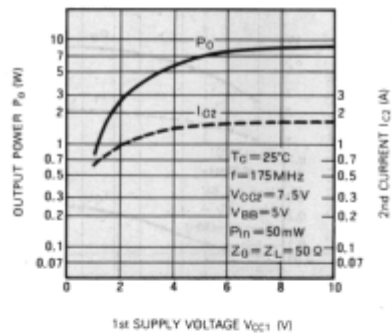
OUTPUT POWER, 2nd CURRENT VS. 1st SUPPLY VOLTAGE CHARACTERISTICS



OUTPUT POWER, 2nd CURRENT VS. 1st SUPPLY VOLTAGE CHARACTERISTICS



OUTPUT POWER, 2nd CURRENT VS. 1st SUPPLY VOLTAGE CHARACTERISTICS



2nd, 3rd HARMONIC VS. FREQUENCY CHARACTERISTICS

