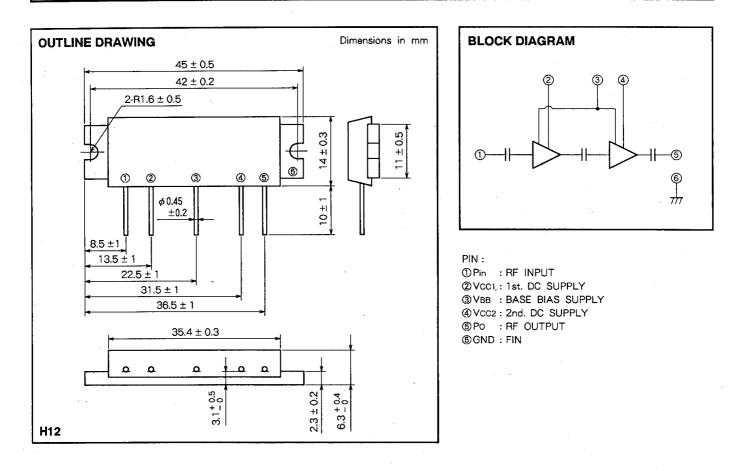
### **MITSUBISHI RF POWER MODULE**



135-160MHz, 12.5V, 7W, FM PORTABLE RADIO



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

Symbol	Parameter	Conditions	Ratings	Unit
Vcc	Supply voltage		16	V
VBB	Base bias		6	V
lcc	Total current		4	A
Pin(max)	Input power	$V_{CC1} = 12.5V, Z_G = Z_L = 50 \Omega$	40	mW
PO(max)	Output power	$Z_G = Z_L = 50 \Omega$	10	W
TC(OP)	Operation case temperature		- 30 to 110	°C
Tstg	Storage temperature		- 40 to 110	°C

Note. Above parameters are guaranteed independently.

### **ELECTRICAL CHARACTERISTICS** (Tc = $25 \,^{\circ}$ C unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		1.1'1
			Min	Max	Unit
f	Frequency range	Vcc1 = Vcc2 = 12.5V V <sub>BB</sub> = 5V Pin = 20mW Z <sub>G</sub> = Z <sub>L</sub> = 50 Ω	135	160	MHz
Po	Output power		7		W
<b>η</b> Τ	Total efficiency		40	:	%
2fo	2nd. harmonic			- 20	dBc
3fo	3rd. harmonic			- 30	dBc
₽ in	Input VSWR			2.5	-
	Load VSWR tolerance	$V_{CC1} = V_{CC2} = 13.2V, V_{BB} = 5V$ $P_0 = 7W (P_{in} : controlled)$ $Load VSWR = 20 : 1 (All phase)$ $Z_G = 50\Omega$	No degradation or destroy		-

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

## M57732L

100

80

60

40

20

0

10

7

5

3

2

0.2

0.07

0.05

0.03

50

Icc1

INPUT POWER Pin (mW)

20 30

CURRENT IT (A)

AL 0.1

0

₹

CURRENT Icci

lst

165

155

8

μT

EFFICIENCY

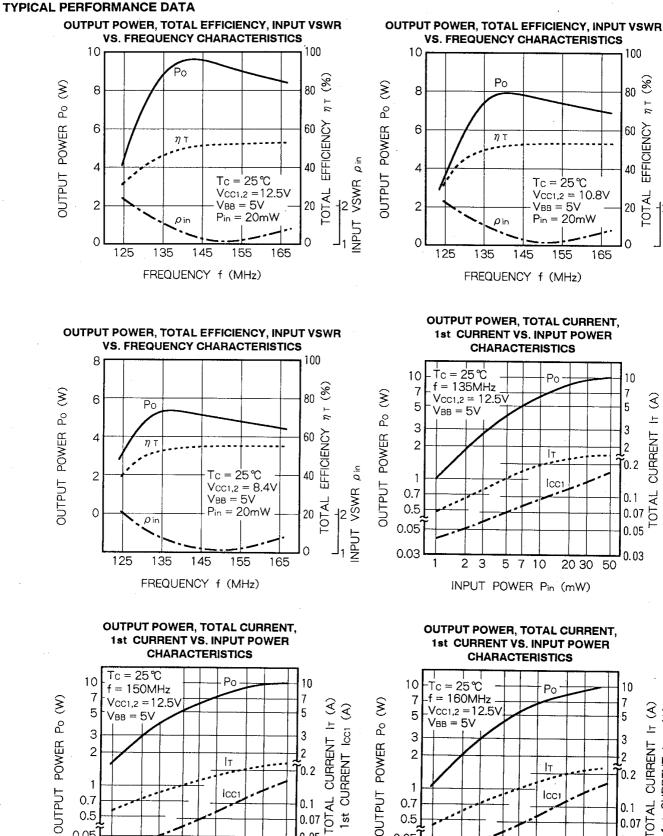
TOTAL

ni Q

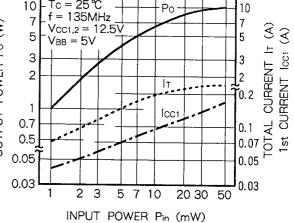
VSWR

NPUT

#### 135-160MHz, 12.5V, 7W, FM PORTABLE RADIO



OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS, INPUT POWER **CHARACTERISTICS** Po





**TOTAL** 

lst

0.1

0.07

0.05

0.03

50

20 30

lcc

7 10

INPUT POWER Pin (mW)

1

0.7

0.5

0.05

0.03

2 3 5 7 10

1

0.7

0.5

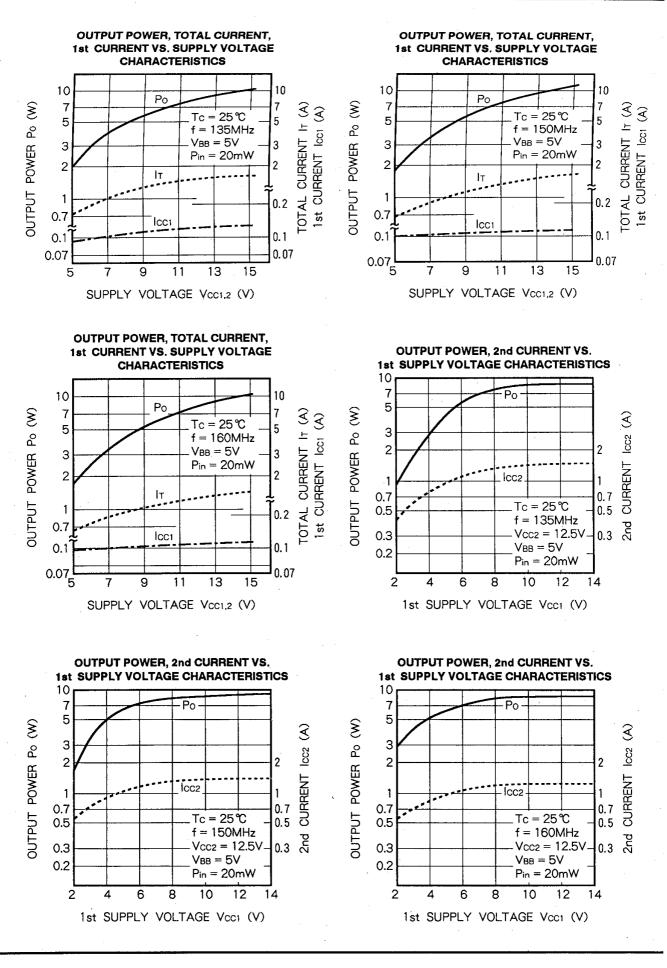
0.05

0.03

2 3 5

# M57732L

#### 135-160MHz, 12.5V, 7W, FM PORTABLE RADIO





## M57732L

135-160MHz, 12.5V, 7W, FM PORTABLE RADIO

