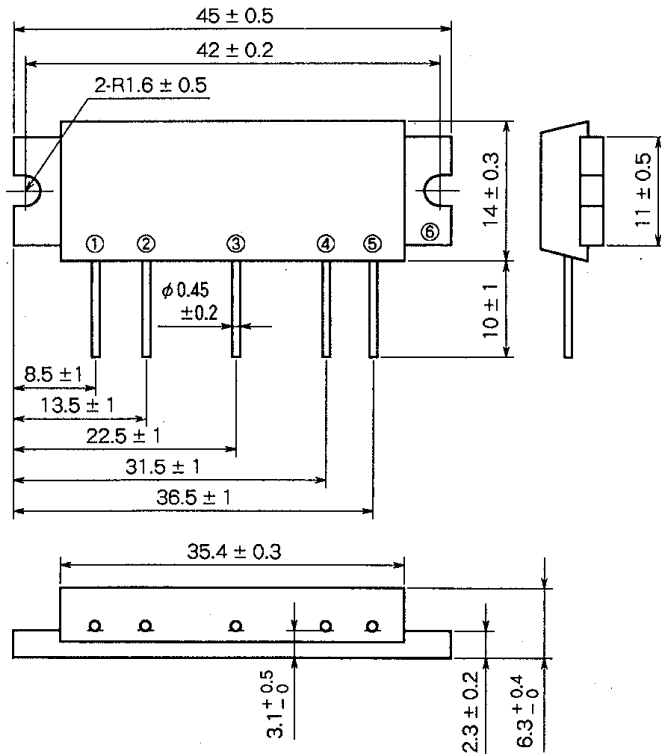


M57732

144-175MHz, 12.5V, 7W, FM PORTABLE RADIO

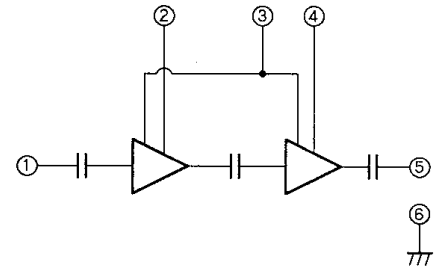
OUTLINE DRAWING

Dimensions in mm



H12

BLOCK DIAGRAM



PIN :

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

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

Symbol	Parameter	Conditions	Ratings	Unit
Vcc	Supply voltage		16	V
Vbb	Base bias		6	V
Icc	Total current		4	A
Pin(max)	Input power	Vcc1 = 12.5V, ZG = ZL = 50 Ω	40	mW
Po(max)	Output power	ZG = ZL = 50 Ω	10	W
Tc(OP)	Operation case temperature		- 30 to 110	°C
Tstg	Storage temperature		- 40 to 110	°C

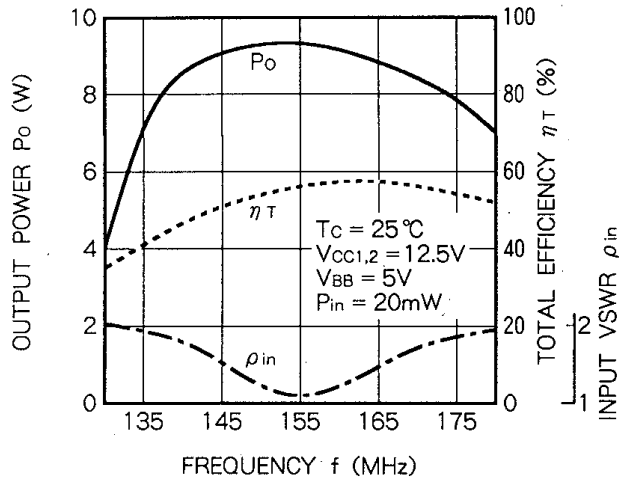
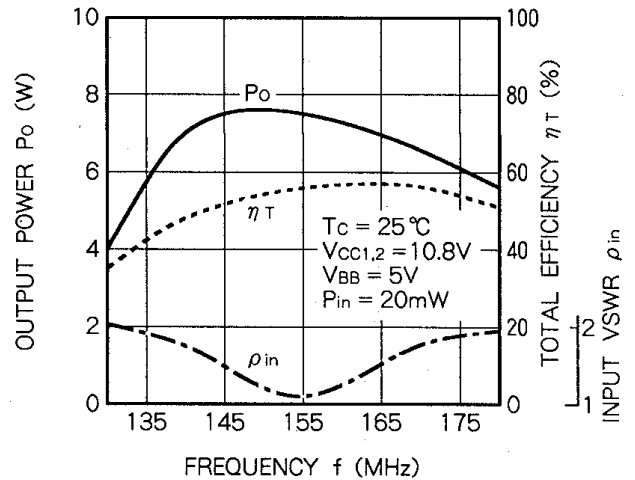
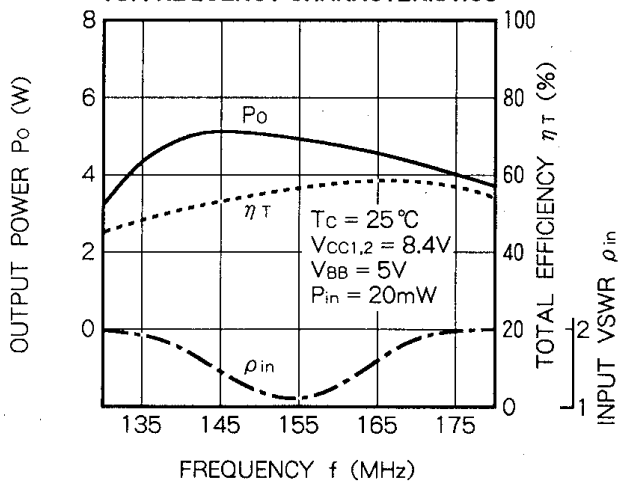
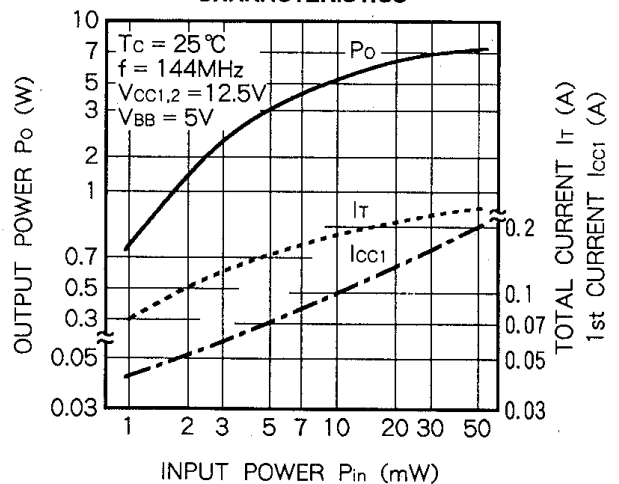
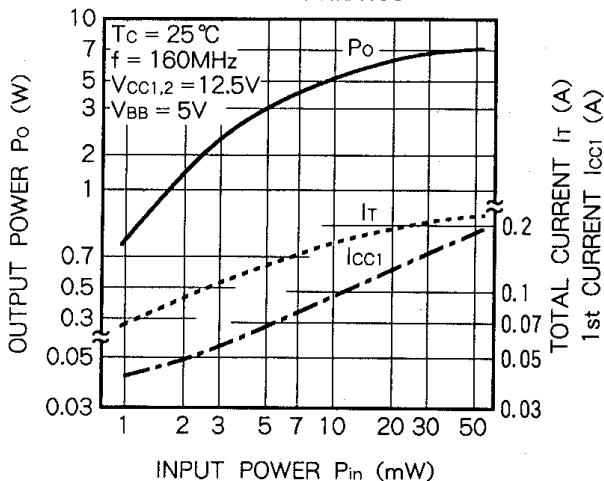
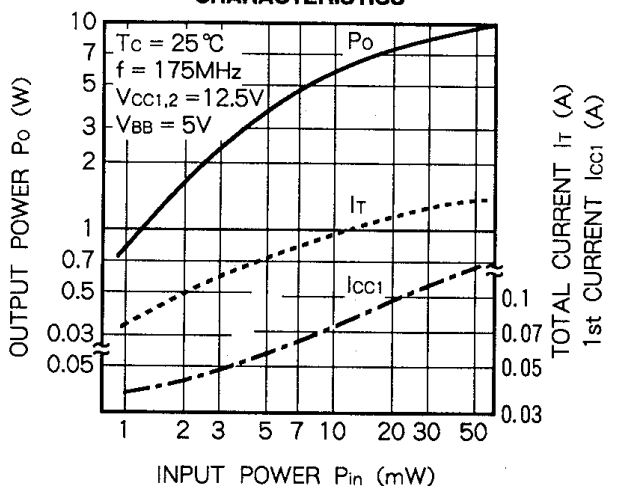
Note. Above parameters are guaranteed independently.

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

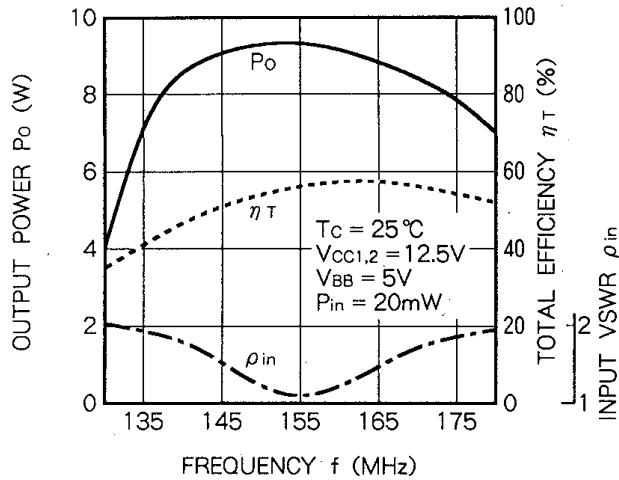
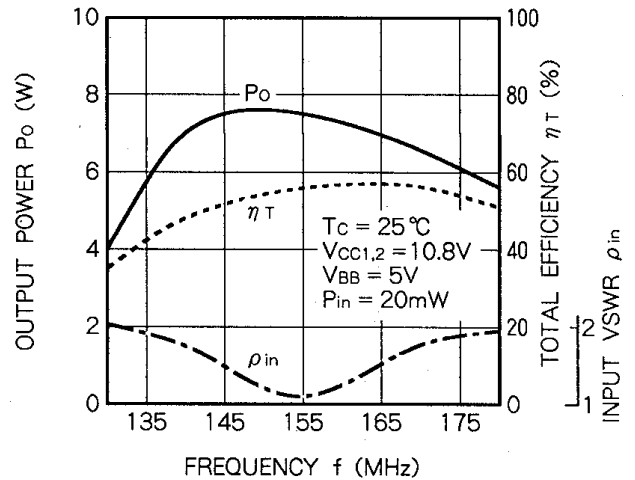
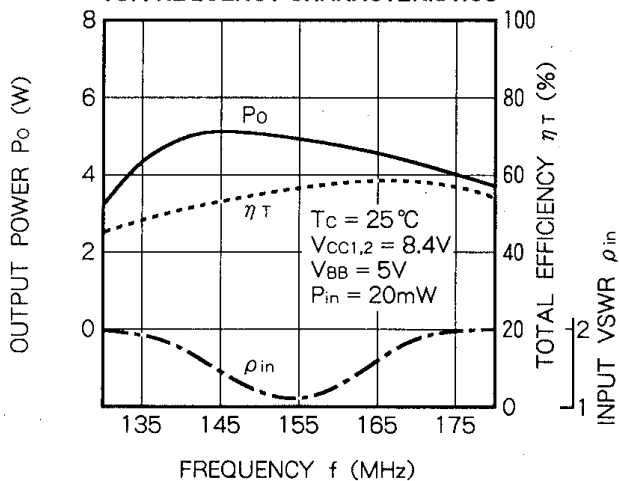
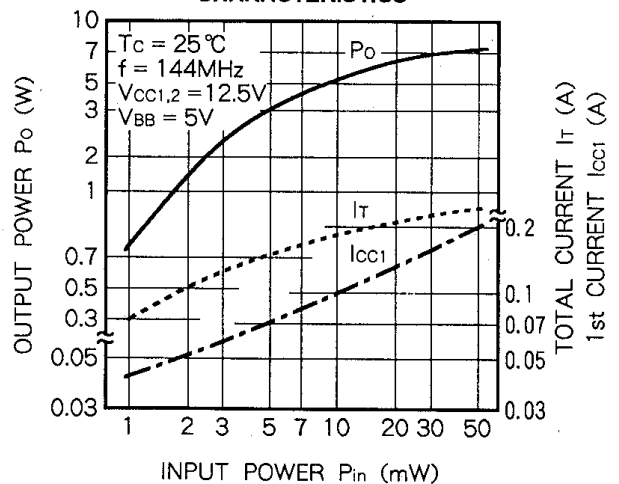
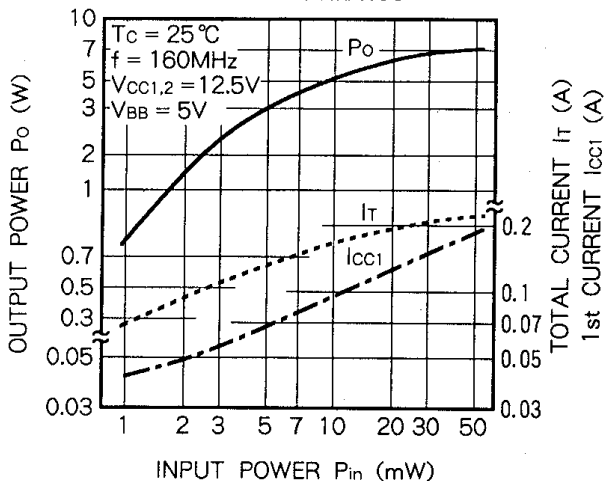
Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range	Vcc1 = Vcc2 = 12.5V Vbb = 5V Pin = 20mW ZG = ZL = 50 Ω	144	175	MHz
Po	Output power		7		W
ηT	Total efficiency		40		%
2fo	2nd. harmonic			- 20	dBc
3fo	3rd. harmonic			- 30	dBc
ρin	Input VSWR			2.5	-
-	Load VSWR tolerance	Vcc1 = Vcc2 = 13.2V, Vbb = 5V Po = 7W (Pin : controlled) Load VSWR = 20 : 1 (All phase) ZG = 50Ω	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 CHARACTERISTICSOUTPUT POWER, TOTAL EFFICIENCY, INPUT VSWR
VS. FREQUENCY CHARACTERISTICSOUTPUT POWER, TOTAL EFFICIENCY, INPUT VSWR
VS. FREQUENCY CHARACTERISTICSOUTPUT POWER, TOTAL CURRENT,
1st CURRENT VS. INPUT POWER
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CHARACTERISTICS

TYPICAL PERFORMANCE DATA

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