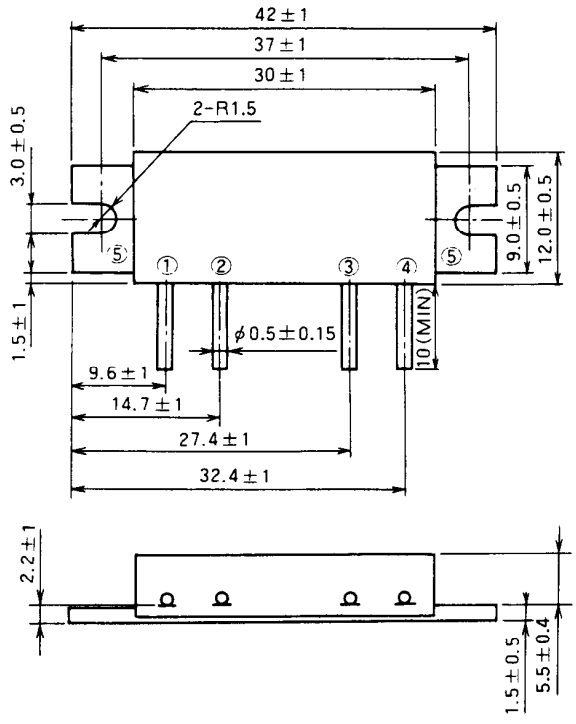
M67713

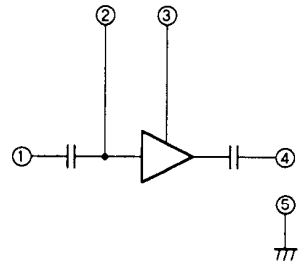
220-225MHz, 12.5V, 7W, FM PORTABLE RADIO

OUTLINE DRAWING Dimensions in mm



H14

BLOCK DIAGRAM



PIN :
①Pin : RF INPUT
②VBB : BASE BIAS SUPPLY
③VCC1 : DC SUPPLY
④Po : RF OUTPUT
⑤GND : FIN

ABSOLUTE MAXIMUM RATINGS (Tc = 25℃ unless otherwise noted)

Symbol	Parameter	Conditions	Ratings	Unit
Vcc	Supply voltage		16	V
VBB	Base bias		6	V
Icc	Total current		3	A
Pin(max)	Input power	ZG = ZL = 50 Ω, Vcc ≦ 12.5V	1	W
Po(max)	Output power	ZG = ZL = 50 Ω	10	W
Tc(OP)	Operation case temperature		− 30 to 110	℃
Tstg	Storage temperature		− 40 to 110	℃

Note. Above parameters are guaranteed independently.

ELECTRICAL CHARACTERISTICS (Tc = 25℃ unless otherwise noted)

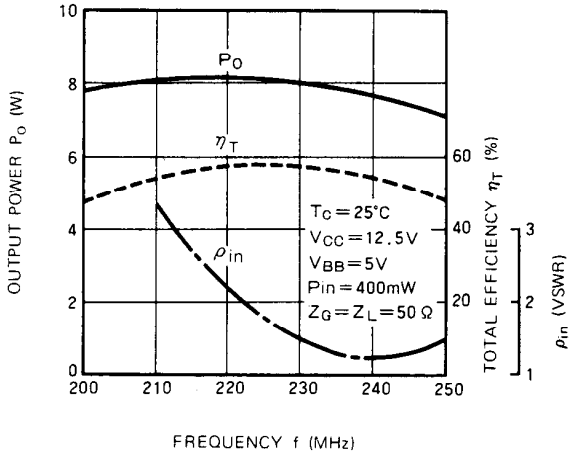
Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range	Pin = 400mW VBB = 5V Vcc = 12.5V ZG = ZL = 50 Ω	220	225	MHz
Po	Output power		7		W
ηT	Total efficiency		45		%
2fo	2nd. harmonic			− 25	dBc
3fo	3rd. harmonic			− 30	dBc
ρin	Input VSWR			2.5	−
−	Load VSWR tolerance	Vcc2 = 13.2V, VBB = 5V Po = 7W (Pin : controlled) Load VSWR=20:1(All phase), 2sec. ZG = 50Ω	No degradation or destroy		−

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

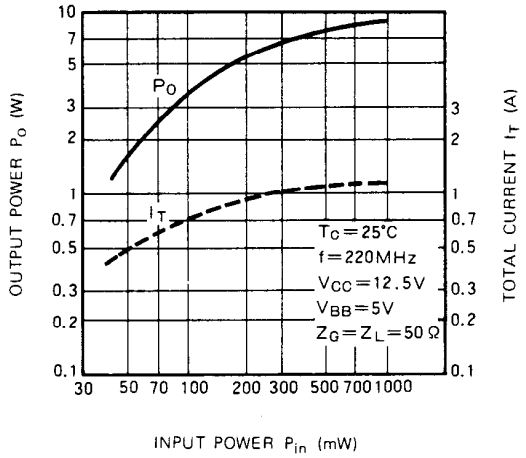
MITSUBISHI ELECTRIC

TYPICAL PERFORMANCE DATA

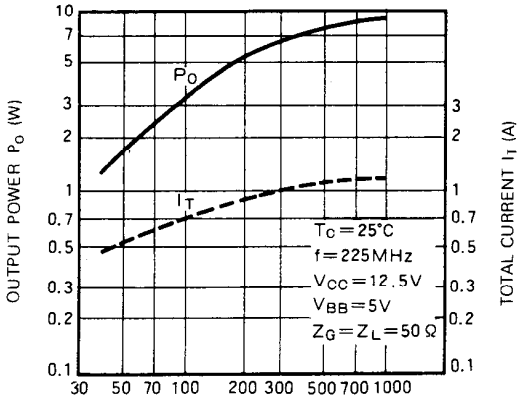
OUTPUT POWER, TOTAL EFFICIENCY, ρ_{in} VS. FREQUENCY CHARACTERISTICS



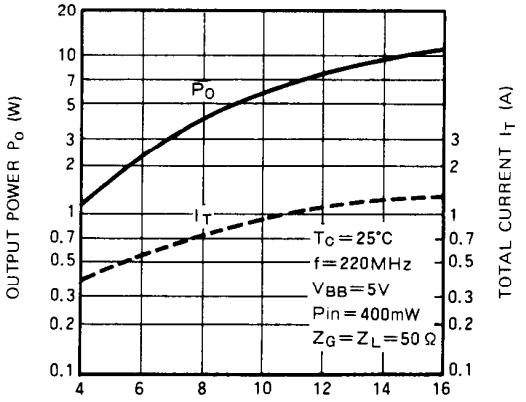
OUTPUT POWER, TOTAL CURRENT VS. INPUT POWER CHARACTERISTICS



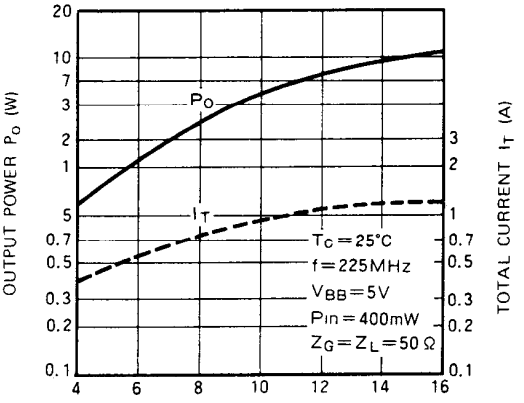
OUTPUT POWER, TOTAL CURRENT VS. INPUT POWER CHARACTERISTICS



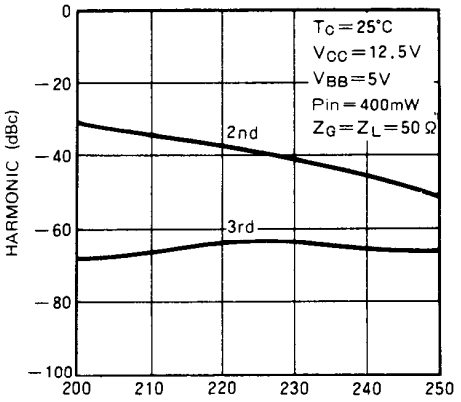
OUTPUT POWER, TOTAL CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS



OUTPUT POWER, TOTAL CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS



2nd, 3rd HARMONIC VS. FREQUENCY CHARACTERISTICS



MITSUBISHI ELECTRIC