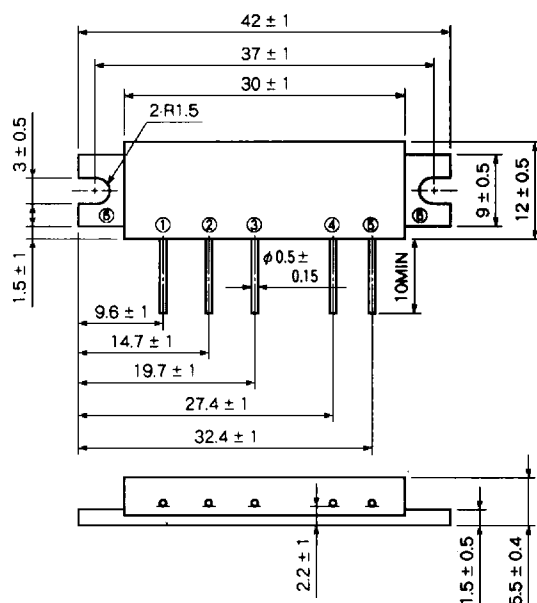


M57797H

450-470MHz, 12.5V, 7W, FM PORTABLE RADIO

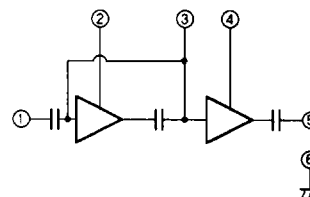
OUTLINE DRAWING

Dimensions in mm



H15

BLOCK DIAGRAM



PIN :

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

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

Symbol	Parameter	Conditions	Rating	Unit
V _{CC}	Supply voltage		16	V
V _{BB}	Base bias		6	V
I _{CC}	Total current		3.5	A
P _{in(max)}	Input power	V _{CC1} ≤ 12.5V, Z _G = 50 Ω	300	mW
P _{O(max)}	Output power	Z _L = 50 Ω	10	W
T _{C(OP)}	Operation case temperature	Z _G = Z _L = 50 Ω	– 30 to 110	°C
T _{stg}	Storage temperature		– 40 to 110	°C

Note. Above parameters are guaranteed independently.

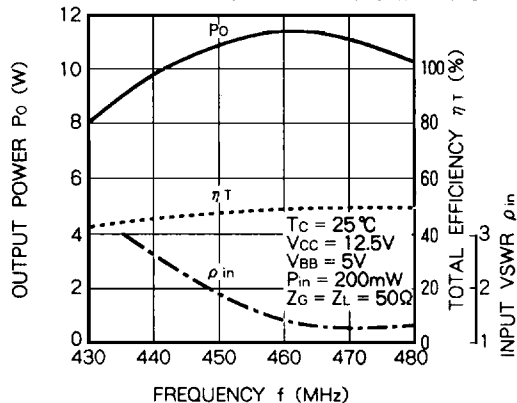
ELECTRICAL CHARACTERISTICS (T_c = 25 °C unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range	$V_{CC1} = V_{CC2} = 12.5V$ $V_{BB} = 5V$ $P_{in} = 200mW$ $Z_G = Z_L = 50 \Omega$	450	470	MHz
P _o	Output power		7		W
η_T	Total efficiency		40		%
2f _o	2nd. harmonic			- 25	dBc
3f _o	3rd. harmonic			- 30	dBc
ρ_{in}	Input VSWR			2.5	-
-	Load VSWR tolerance	$V_{CC1} = V_{CC2} = 13.2V$, $V_{BB} = 5V$ $P_o = 7W$ (P_{in} : controlled) Load VSWR $\geq 20:1$ (All phase) $Z_G = 50\Omega$	No degradation or destroy		-

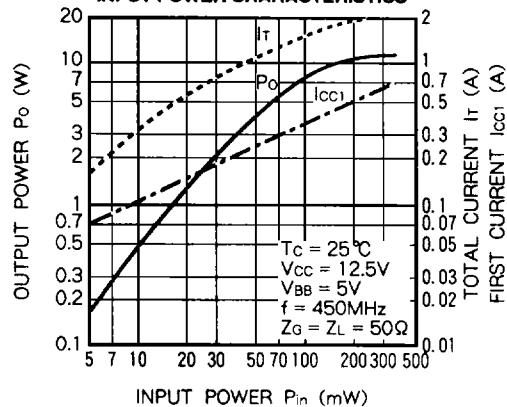
Note. Above parameters, ratings, limits and conditions are subject to change.

TYPICAL PERFORMANCE DATA

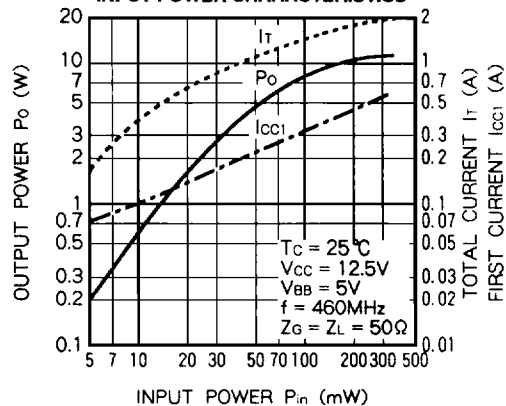
OUTPUT POWER, TOTAL EFFICIENCY,
INPUT VSWR VS. FREQUENCY CHARACTERISTICS



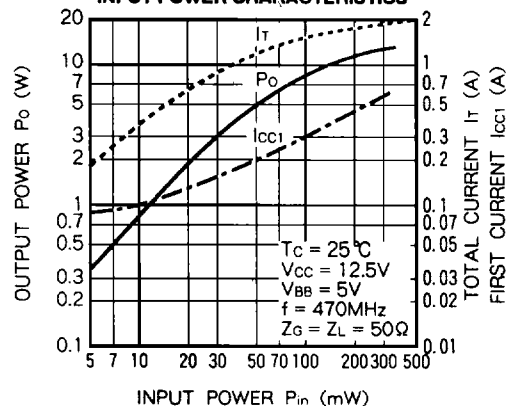
OUTPUT POWER, TOTAL CURRENT,
FIRST CURRENT VS.
INPUT POWER CHARACTERISTICS



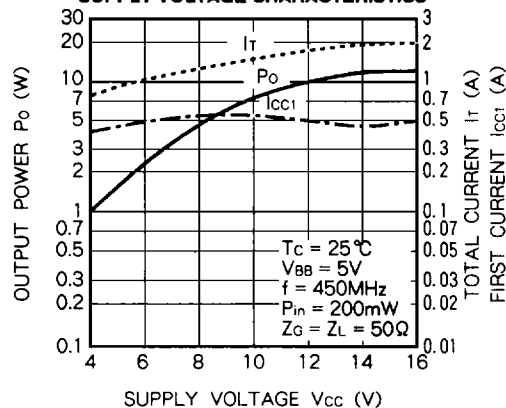
OUTPUT POWER, TOTAL CURRENT,
FIRST CURRENT VS.
INPUT POWER CHARACTERISTICS



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

