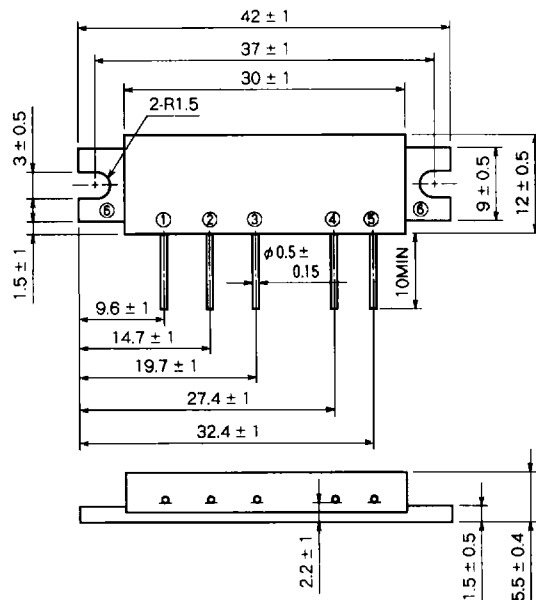


M57797UL

380-400MHz, 12.5V, 7W, FM PORTABLE RADIO

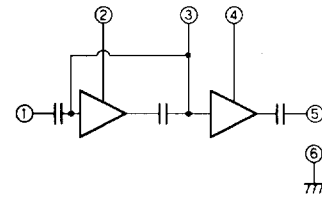
OUTLINE DRAWING

Dimensions in mm



H15

BLOCK DIAGRAM



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 ($T_c = 25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Conditions	Ratings	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	$V_{CC1} \leq 12.5V, Z_G = 50 \Omega$	300	mW
$P_{o(max)}$	Output power	$Z_L = 50 \Omega$	10	W
$T_{C(OP)}$	Operation case temperature	$Z_G = Z_L = 50 \Omega$	- 30 to 110	$^\circ\text{C}$
T_{stg}	Storage temperature		- 40 to 110	$^\circ\text{C}$

Note. Above parameters are guaranteed independently.

ELECTRICAL CHARACTERISTICS ($T_c = 25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range	$V_{CC1} = V_{CC2} = 12.5V$ $V_{BB} = 5V$ $P_{in} = 200mW$ $Z_G = Z_L = 50 \Omega$	380	400	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.