

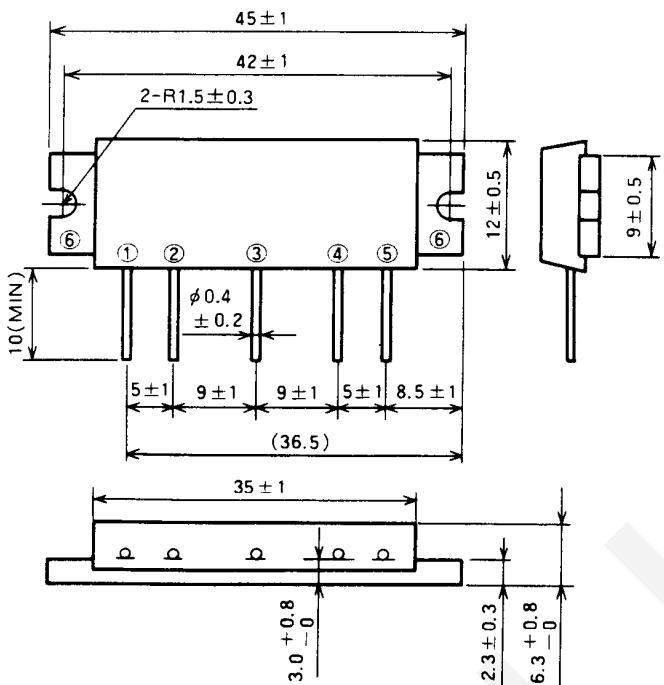


With compliments of Island Labs

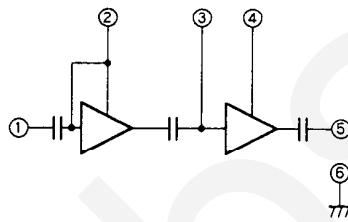
68-81MHz, 12.5V, 7W, FM PORTABLE RADIO

OUTLINE DRAWING

Dimensions in mm



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

Symbol	Parameter	Conditions	Ratings	Unit
V _{CC}	Supply voltage		15	V
V _{BB}	Base bias		5.5	V
I _{CC}	Total current		4	A
P _{IN(max)}	Input power	$Z_G = Z_L = 50 \Omega, V_{CC1} \leq 12.5V$	40	mW
P _{O(max)}	Output power	$Z_G = Z_L = 50 \Omega$	10	W
T _{C(OP)}	Operation case temperature		-30 to 110	°C
T _{STG}	Storage temperature		-40 to 110	°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		68	81	MHz
P _O	Output power		7		W
$\eta \tau$	Total efficiency	$V_{BB} = 5V$	38		%
2f _O	2nd. harmonic	$V_{CC} = 12.5V$		-18	dBc
3f _O	3rd. harmonic	$Z_G = Z_L = 50 \Omega$		-25	dBc
ρ_{IN}	Input VSWR			4.0	-
-	Load VSWR tolerance	$V_{CC} = 13.2V, V_{BB} = 5V$ $P_O = 7W$ (Pin 1 : controlled) Load VSWR=20:1 (All phase), 2sec. $Z_G = 50 \Omega$	No degradation or destroy		-

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

TYPICAL PERFORMANCE DATA

