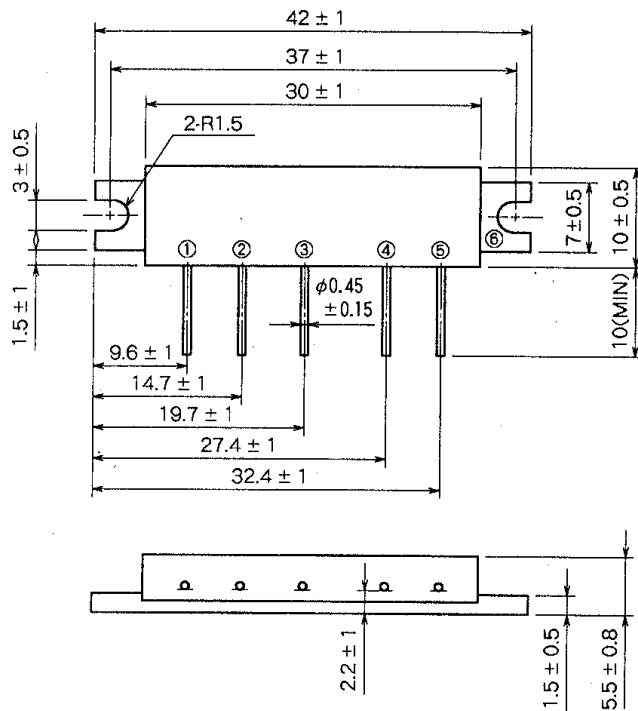


# M67748UH

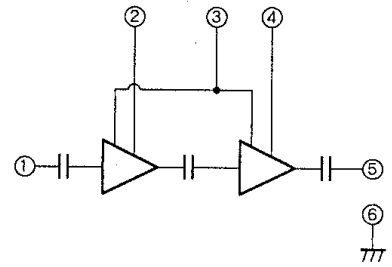
220-225MHz, 12.5V, 7W, FM PORTABLE RADIO

## 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<sub>c</sub> = 25°C unless otherwise noted)

Symbol	Parameter	Conditions	Ratings	Unit
V <sub>cc</sub>	Supply voltage	V <sub>BB</sub> = 4V	15	V
V <sub>BB</sub>	Base bias	V <sub>cc</sub> ≤ 12.5V	5.5	V
I <sub>cc</sub>	Total current		4	A
P <sub>in(max)</sub>	Input power	V <sub>cc1</sub> ≤ 12.5V, Z <sub>G</sub> = Z <sub>L</sub> = 50Ω	40	mW
P <sub>o(max)</sub>	Output power	V <sub>cc1</sub> ≤ 12.5V, Z <sub>G</sub> = Z <sub>L</sub> = 50Ω	10	W
T <sub>c(OP)</sub>	Operation case temperature	Z <sub>G</sub> = Z <sub>L</sub> = 50Ω	- 30 to 110	°C
T <sub>stg</sub>	Storage temperature		- 40 to 110	°C

Note. Above parameters are guaranteed independently.

## ELECTRICAL CHARACTERISTICS (T<sub>c</sub> = 25°C unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range	V <sub>cc1</sub> = V <sub>cc2</sub> = 12.5V V <sub>BB</sub> = 5V P <sub>in</sub> = 20mW Z <sub>G</sub> = Z <sub>L</sub> = 50Ω	220	225	MHz
P <sub>o</sub>	Output power		7		W
η <sub>T</sub>	Total efficiency		45		%
2f <sub>o</sub>	2nd. harmonic			- 20	dBc
3f <sub>o</sub>	3rd. harmonic			- 25	dBc
ρ <sub>in</sub>	Input VSWR			2.5	-
-	Load VSWR tolerance	V <sub>cc2</sub> = 13.2V, V <sub>BB</sub> = 5V, P <sub>in</sub> = 20mW P <sub>o</sub> = 7W (V <sub>cc1</sub> : controlled) Load VSWR = 20:1 (All phase), 5sec. Z <sub>G</sub> = 50Ω	No degradation or destroy		-

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