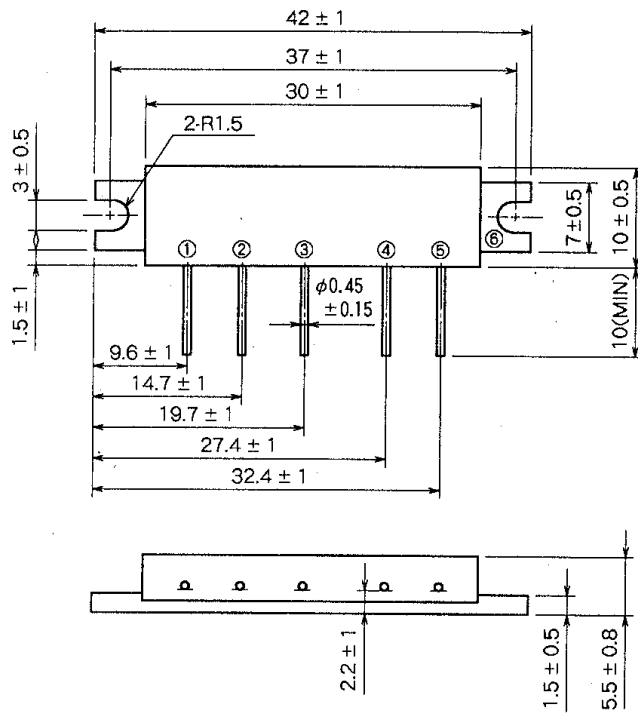


# M67748UH

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

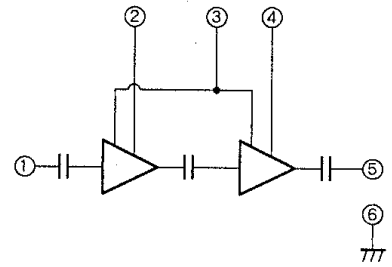
## OUTLINE DRAWING

Dimensions in mm



H27

## 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 (Tc = 25°C unless otherwise noted)

Symbol	Parameter	Conditions	Ratings	Unit
Vcc	Supply voltage	V <sub>BB</sub> = 4V	15	V
V <sub>BB</sub>	Base bias	Vcc ≤ 12.5V	5.5	V
Icc	Total current		4	A
P <sub>in(max)</sub>	Input power	Vcc1 ≤ 12.5V, Z <sub>G</sub> = Z <sub>L</sub> = 50Ω	40	mW
P <sub>o(max)</sub>	Output power	Vcc1 ≤ 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 (Tc = 25°C unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range	Vcc1 = Vcc2 = 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	Vcc2 = 13.2V, V <sub>BB</sub> = 5V, P <sub>in</sub> = 20mW P <sub>o</sub> = 7W (Vcc1 : 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.