

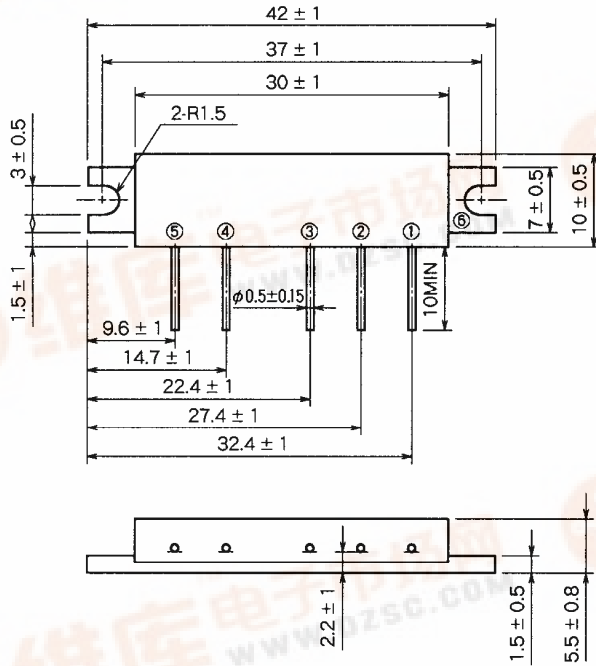
MITSUBISHI RF POWER MODULE

M67748HR

150-175MHz, 12.5V, 7W, FM PORTABLE RADIO

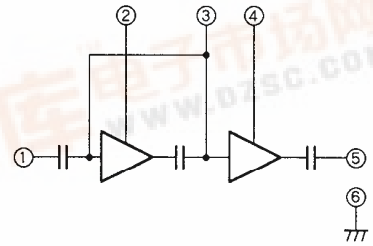
OUTLINE DRAWING

Dimensions in mm



H27R

BLOCK DIAGRAM



PIN :

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

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

Symbol	Parameter	Conditions	Ratings	Unit
Vcc	Supply voltage	V _{BB} = 5V	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 Ω, V _{cc1} ≤ 12.5V	40	mW
P _{o(max)}	Output power	Z _G = Z _L = 50 Ω	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 (Tc = 25 °C unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range		150	175	MHz
P _o	Output power	P _{in} = 20mW V _{BB} = 5V	7		W
η _T	Total efficiency	V _{cc} = 12.5V	45		%
2f _o	2nd. harmonic	Z _G = Z _L = 50 Ω		- 20	dBc
3f _o	3rd. harmonic			- 25	dBc
ρ _{in}	Input VSWR			2.5	-
-	Load VSWR tolerance	V _{cc2} = 13.2V, V _{BB} = 5V P _o = 7W (V _{cc1} : controlled) P _{in} = 20mW Load VSWR = 20:1 (All phase), 2sec. Z _G = 50 Ω	No degradation or destroy		-

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

