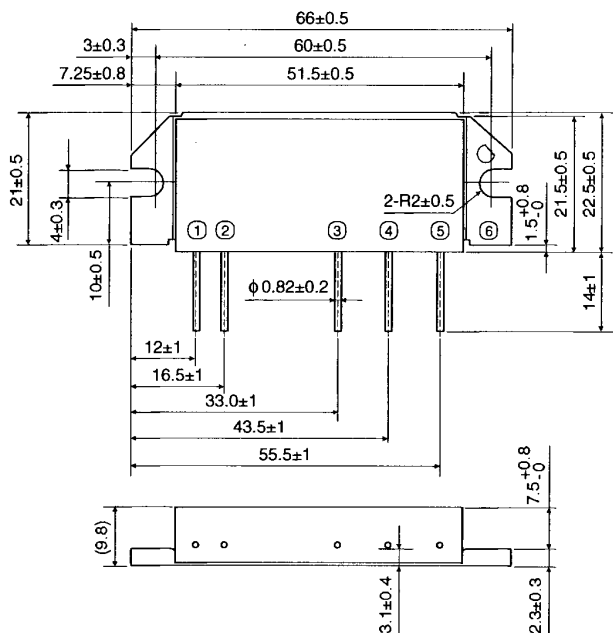


# MITSUBISHI RF POWER MODULE M68769SH

470-512MHz, 12.5V, 45W, FM MOBILE RADIO

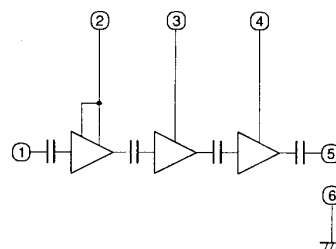
## OUTLINE DRAWING

Dimensions in mm



H3

## BLOCK DIAGRAM



PIN:

- ① Pin : RF INPUT
- ② VCC1: 1st. DC SUPPLY
- ③ VCC2: 2nd. DC SUPPLY
- ④ VCC3: 3rd. DC SUPPLY
- ⑤ Po : RF OUTPUT
- ⑥ GND: FIN

## ABSOLUTE MAXIMUM RATINGS (T<sub>c</sub>=25°C unless otherwise noted)

Symbol	Parameter	Conditions	Rated	Unit
V <sub>CC</sub>	Supply voltage	Z <sub>G</sub> =Z <sub>L</sub> =50Ω	17	V
I <sub>CC</sub>	Total current	Z <sub>G</sub> =Z <sub>L</sub> =50Ω	15	A
P <sub>in (max)</sub>	Input power	Z <sub>G</sub> =Z <sub>L</sub> =50Ω, V <sub>CC1</sub> ≤12.5V	600	mW
P <sub>O (max)</sub>	Output power	Z <sub>G</sub> =Z <sub>L</sub> =50Ω, V <sub>CC1</sub> ≤12.5V	60	W
T <sub>C (OP)</sub>	Operation case temperature	Z <sub>G</sub> =Z <sub>L</sub> =50Ω, V <sub>CC1</sub> ≤12.5V	-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		470	512	MHz
P <sub>O</sub>	Output power		45		W
η <sub>T</sub>	Total efficiency		35		%
2f <sub>o</sub>	2nd. harmonic	V <sub>CC</sub> =12.5V, P <sub>in</sub> =200mW, Z <sub>G</sub> =Z <sub>L</sub> =50Ω		-30	dBc
3f <sub>o</sub>	3rd. harmonic			-30	dBc
ρ <sub>in</sub>	Input VSWR			2.8	-
-	Load VSWR tolerance	V <sub>CC</sub> =15.2V, P <sub>O</sub> =45W(P <sub>in</sub> :controlled) Z <sub>G</sub> =50Ω, Load VSWR=8:1 (All phase)	No degradation or destroy		-

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