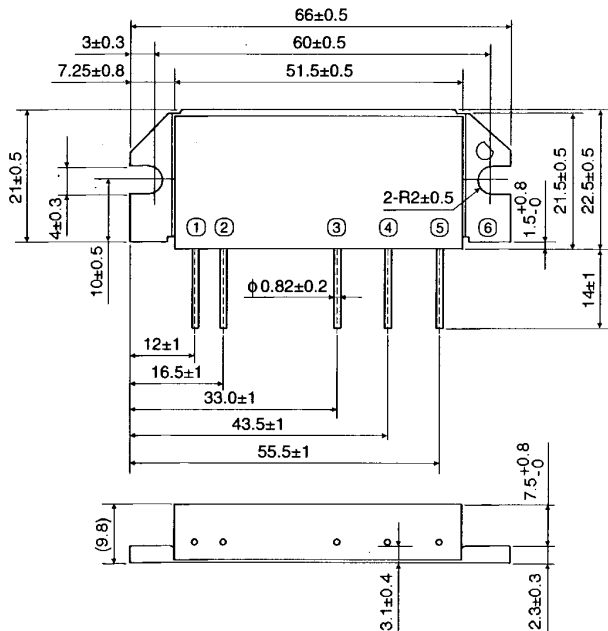


M68769H

450-490MHz, 12.5V, 45W FM MOBILE RADIO

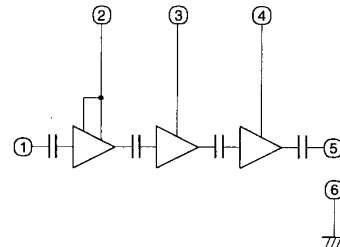
OUTLINE DRAWING

Dimensions in mm



H3

BLOCK DIAGRAM



PIN:

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

MAXIMUM RATINGS (Tc=25deg.C unless otherwise noted)

Symbol	Parameter	Conditions	Ratings	Unit
Vcc	SUPPLY VOLTAGE	ZG=ZL=50 ohms	17	V
Icc	TOTAL CURRENT	ZG=ZL=50 ohms	15	A
Pin	INPUT POWER	ZG=ZL=50 ohms, Vcc1<12.5V	600	mW
Po	OUTPUT POWER	ZG=ZL=50 ohms, Vcc1<12.5V	60	W
Tc(OP)	OPERATION CASE TEMPERATURE	ZG=ZL=50 ohms, Vcc1<12.5V	-30 to +110	deg. C
Tstg	STORAGE TEMPERATURE		-40 to +110	deg. C

Note: Above parameters are guaranteed independently.

ELECTRICAL CHARACTERISTICS (Tc=25deg.C, ZG=ZL=50ohms unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range		450	490	MHz
Po	Output power	Vcc1,2,3=12.5V, Pin=300mW, ZG=ZL=50 ohms	45		W
η t	Total efficiency		35		%
2fo	2nd. harmonic			-30	dBc
3fo	3rd. harmonic			-30	dBc
ρ in	Input VSWR			2.8:1	-
-	Load VSWR tolerance	Vcc=15.2V, Po=45W (Pin: controlled) ZG=50 Ω , LOAD VSWR=8:1 (all phase)	No degradation or destroy		-

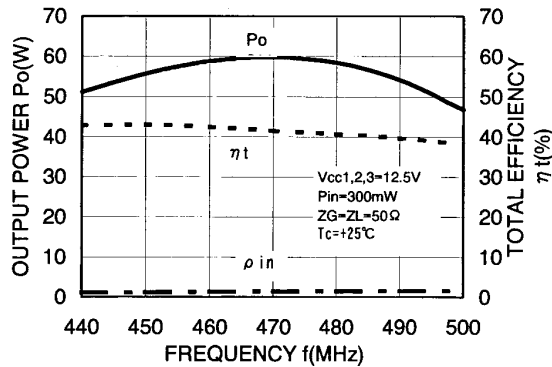
Note: above parameters, ratings, limits and test conditions are subject to change.

Keep safety first in your circuit designs!

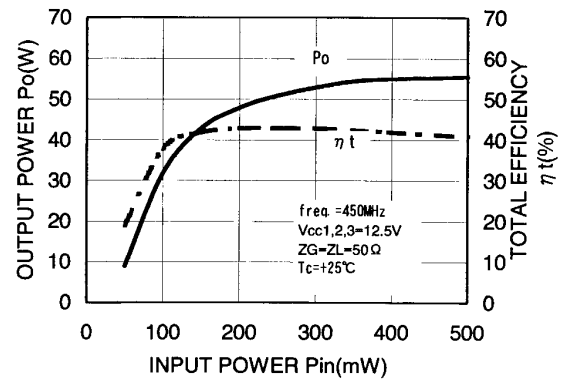
Mitsubishi Electric Corporation puts the maximum effort into making semiconductor products better and more reliable, but there is always the possibility that trouble may occur with them. Trouble with semiconductors may lead to personal injury, fire or property damage. Remember to give due consideration to safety when making your circuit designs, with appropriate measures such as (i) placement of substitutive, auxiliary circuits, (ii) use of non-flammable material or (iii) prevention against any malfunction or mishap.

TYPICAL PERFORMANCE DATA

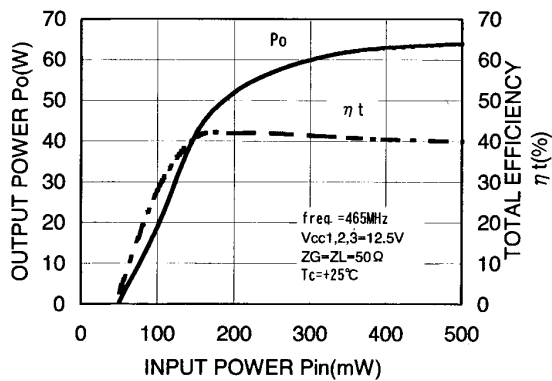
OUTPUT POWER, TOTAL EFFICIENCY,
INPUT VSWR VS. FREQUENCY



OUTPUT POWER, EFFICIENCY
VS. INPUT POWER



OUTPUT POWER, EFFICIENCY
VS. INPUT POWER



OUTPUT POWER, EFFICIENCY
VS. INPUT POWER

