

ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
SENSITIVE
DEVICES

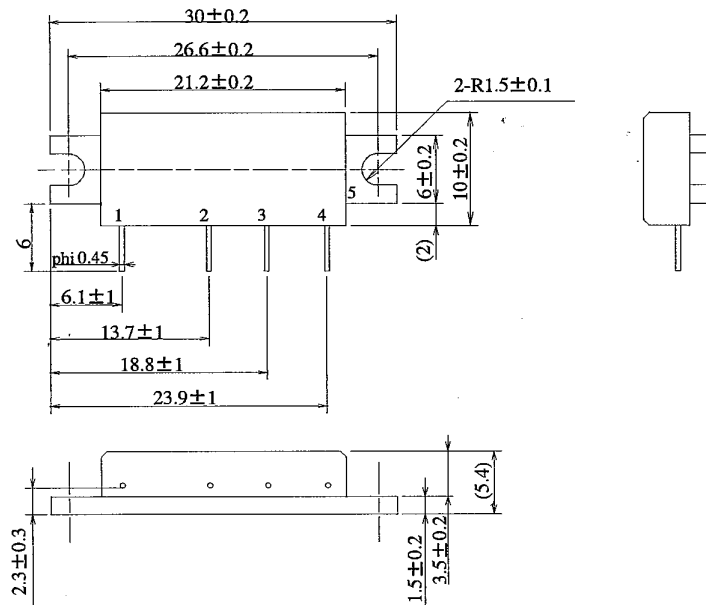
MITSUBISHI RF POWER MODULE

M68732SHA

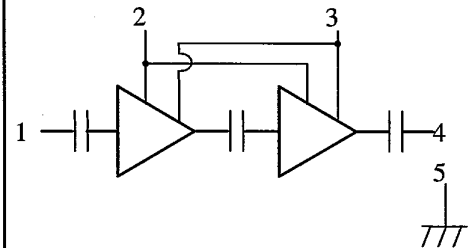
Silicon MOS FET Power Amplifier, 470-520MHz 6.7W FM PORTABLE

OUTLINE DRAWING

Dimensions in



BLOCK DIAGRAM



PIN:

- 1.Pin :RF INPUT
- 2.V_{GG} :GATE BIAS SUPPLY
- 3.V_{DD} :DRAIN BIAS SUPPLY
- 4.Po :RF OUTPUT
- 5.GND :FIN

MAXIMUM RATINGS (T_c=25deg.C UNLESS OTHERWISE NOTED)

SYMBOL	PARAMETER	CONDITIONS	RATINGS	UNIT
V _{DD}	SUPPLY VOLTAGE	V _{GG} <3.5V, Z _g =Z _l =50ohms	9.2	V
V _{GG}	GATE BIAS VOLTAGE		4	V
P _{in}	INPUT POWER	f=470-520MHz, Z _g =Z _l =50ohms	70	mW
P _o	OUTPUT POWER	f=470-520MHz, Z _g =Z _l =50ohms	10	W
T _{c(OP)}	OPERATION CASE TEMPERATURE	f=470-520MHz, Z _g =Z _l =50ohms	-30 to +100	deg.C
T _{stg}	STORAGE TEMPERATURE		-40 to +110	deg.C

Note: Above parameters are guaranteed independently.

ELECTRICAL CHARACTERISTICS (T_c=25deg.C, Z_g=Z_l=50ohms UNLESS OTHERWISE NOTED)

SYMBOL	PARAMETER	CONDITIONS	LIMITS		UNIT
			MIN	MAX	
f	FREQUENCY RANGE		470	520	MHz
P _o	OUTPUT POWER	V _{dd} =7.2V,	6.7		W
η _t	TOTAL EFFICIENCY	V _{gg} =3.5V,	37		%
2f _o	2nd HARMONIC	P _{in} =50mW		-25	dBc
VSWR _{in}	INPUT VSWR			4	-
	Stability	Z _g =50ohms, V _{dd} =4 - 9.2V, Load VSWR < 4:1	No parasitic oscillation		
	LOAD VSWR TOLERANCE	V _{dd} =9.2V, P _{in} =50mW, P _o =6.7W(V _{gg} ADJUST), Z _g =50ohms Load VSWR =20:1	No degradation or destroy		-

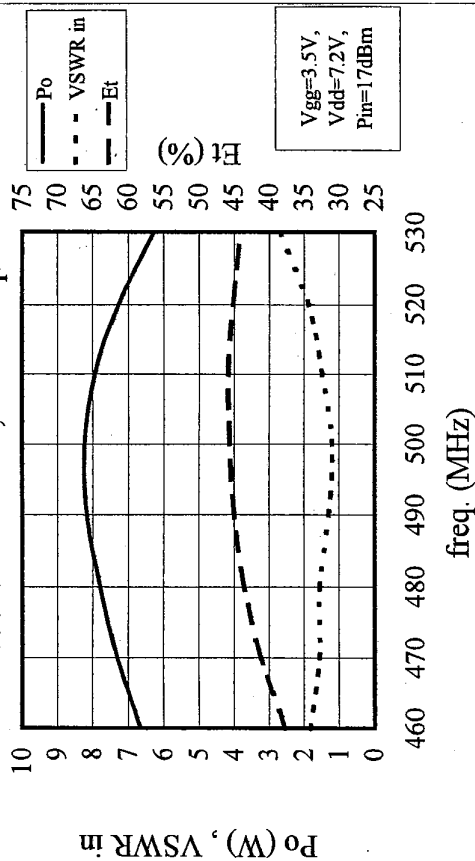
ABOVE PARAMETERS, RATINGS, LIMITS AND CONDITIONS ARE SUBJECT TO CHANGE .

Keep safety first in your circuit designs!

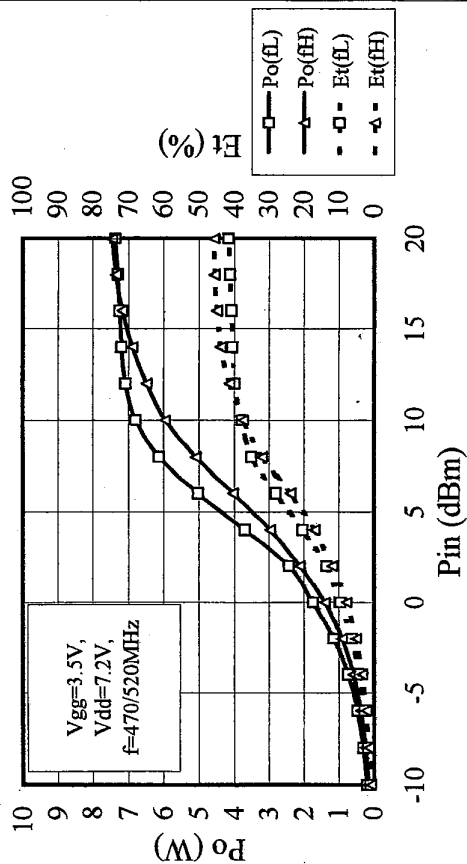
Mitsubishi Electric Corporation puts the maximum effort into making semiconductor products better and more reliable, but there is always the possibility that trouble may occur with them. Trouble with semiconductors may lead to personal injury, fire or property damage. Remember to give due consideration 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.

M68732SHA TYPICAL PERFORMANCE DATA

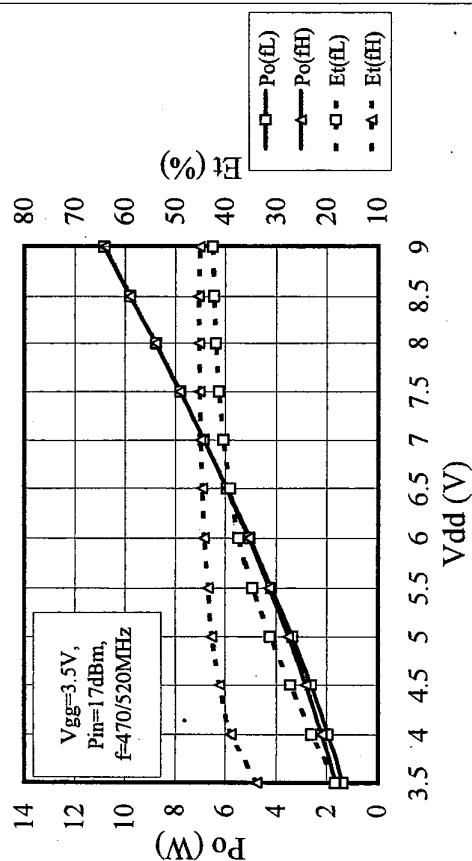
M68732SHA Po,Et vs. freq.



M68732SHA Po,Et vs. Pin



M68732SHA Po,Et vs. Vdd



M68732SHA Po,Et vs. Vgg

