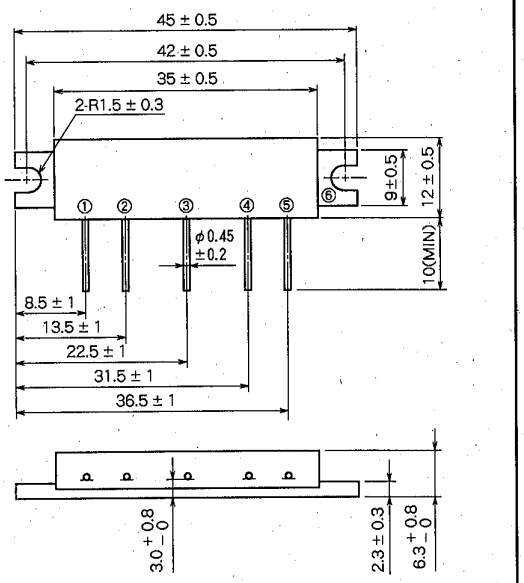
ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELETROSTATIC
SENSITIVE
DEVICES

MITSUBISHI RF POWER MODULE

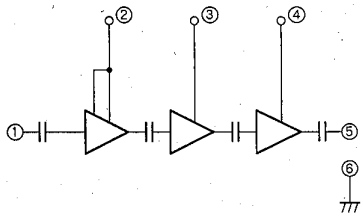
M68765

135-175MHz 5.5W FM PORTABLE

OUTLINE DRAWING Dimensions in mm



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	Vbb<5V,Zg=Zl=50ohms	13	V
Vbb	GATE BIAS VOLTAGE	Zg=Zl=50ohms	6	V
Pin	INPUT POWER	f=135-175MHz,Zg=Zl=50ohms	80	mW
Po	OUTPUT POWER	f=135-175MHz,Zg=Zl=50ohms	9	W
Tc(OP)	OPERATION CASE TEMPERATURE	f=135-175MHz,Zg=Zl=50ohms	-30 to +100	deg.C
Tstg	STORAGE TEMPERATURE		-40 to +110	deg.C

Note:Above parameters are guaranteed independently.

ELECTRICAL CHARACTERISTICS (Tc=25deg.C,Zg=Zl=50ohm UNLESS OTHERWISE NOTED)

SYMBOL	PARAMETER	CONDITIONS	LIMITS		UNIT
			MIN	MAX	
f	FREQUENCY RANGE		135	175	MHz
Po	OUTPUT POWER	Vcc=9.6V,	5.5		W
ηt	TOTAL EFFICIENCY	Vbb=5V,	33		%
2fo	2nd HARMONIC	Pin=50mW		-15	dBc
VSWR in	INPUT VSWR			3.5	-
	Stability	Vcc1=6 - 9.6V, Vcc2=0 - 9.6V , Vbb=5V (Vcc1<Vcc2) , Pin=0-50mW , Po<9W Zg=50ohms, LOAD VSWR < 4:1(All Phase)	No parasitic oscillation		
	LOAD VSWR TOLERANCE	Vcc1=Vcc2=9.6V, Vbb=5V , Po=7W(Pin ADJUST) Zg=50ohms , LOAD VSWR =20:1(ALL Phase)	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.