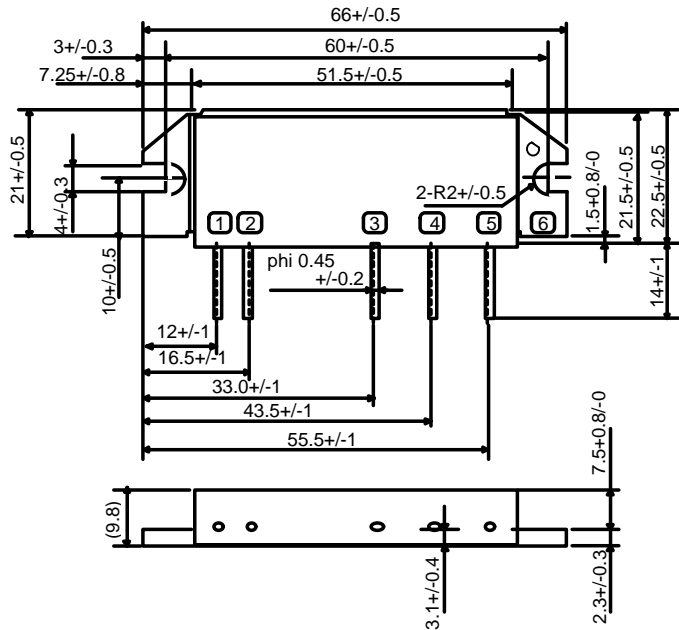


M68762SL

Silicon Bipolar Power Amplifier, 350-400MHz 30W FM Mobile

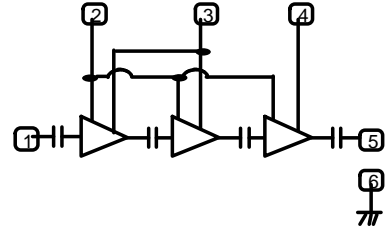
OUTLINE DRAWING

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

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	10	A
Pin	INPUT POWER	Vcc1<12.5V, ZG=ZL=50 ohms	600	mW
Po	OUTPUT POWER	Vcc1<12.5V, ZG=ZL=50 ohms	40	W
Tc(OP)	OPERATION CASE TEMPERATURE	ZG=ZL=50 ohms	-30 to +110	deg. C
Tstg	STORAGE TEMPERATURE		-40 to +110	deg. C

Note: Above parameters are guaranteed independently.

ELECTRICAL CHARACTERISTICS (Tc=25deg.C UNLESS OTHERWISE NOTED)

SYMBOL	PARAMETER	TEST CONDITIONS	LIMITS		UNIT
			MIN	MAX	
f	FREQUENCY RANGE		350	400	MHz
Po	OUTPUT POWER		30		W
Efficiency	TOTAL EFFICIENCY	Vcc=12.5V, Pin=0.3W, ZG=ZL=50 ohms	40		%
2fo	2nd HARMONIC			-30	dBc
3fo	3rd HARMONIC			-30	dBc
VSWR in	INPUT VSWR			3.5	-
-	STABILITY (note 1)	ZG=50 ohms, Vcc1=5-12.5V, Vcc2=Vcc3=10-16V (Vcc1<Vcc2=Vcc3) Po<40W (Pin control), Load VSWR < 3.0:1(all phase)	No parasitic oscillation		-
VSWR T	LOAD VSWR TOLERANCE	Vcc=15.2V, Po=30W(Pin control) ZG=50 ohms, LOAD VSWR=20:1	No degradation or destroy		-

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

NOTE1: Stability is tested by sampling test (10pcs/LOT)

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.