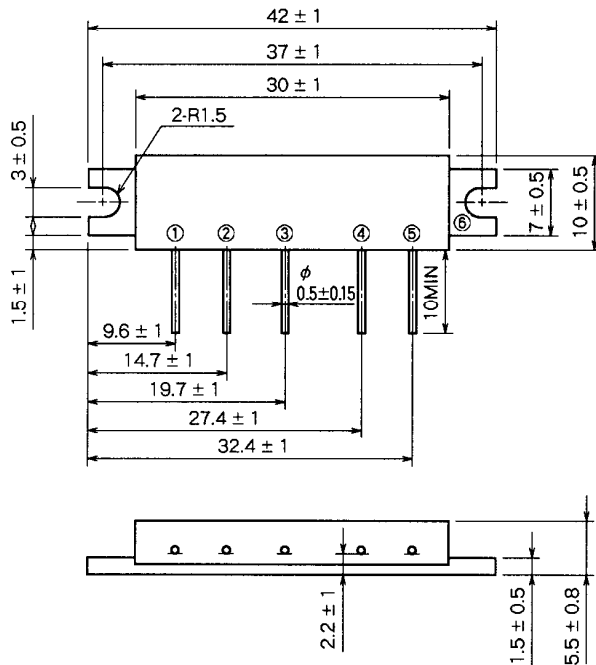


# M67749L

400-430MHz, 12.5V, 7W, FM PORTABLE RADIO

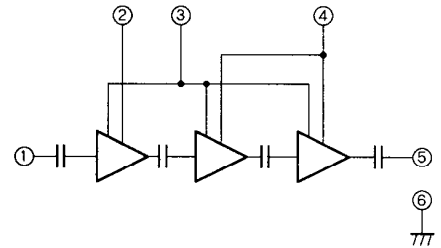
## OUTLINE DRAWING

Dimensions in mm



H27

## BLOCK DIAGRAM



PIN :

- ① Pin : RF INPUT
- ② Vcc1 : 1nd. DC SUPPLY
- ③ VBB : BASE BIAS SUPPLY
- ④ Vcc2 : 2nd. DC SUPPLY
- ⑤ Po : RF OUTPUT
- ⑥ GND : FIN

## ABSOLUTE MAXIMUM RATINGS (Tc = 25°C unless otherwise noted)

Symbol	Parameter	Conditions	Ratings	Unit
Vcc	Supply voltage	$V_{BB} \leq 5V$	15	V
VBB	Base bias	$V_{cc} \leq 12.5V$	5.5	V
Icc	Total current		4	A
Pin(max)	Input power	$Z_G = Z_L = 50 \Omega, V_{cc1} \leq 12.5V$	40	mW
Po(max)	Output power	$Z_G = Z_L = 50 \Omega$	10	W
Tc(OP)	Operation case temperature		- 30 to 110	°C
Tstg	Storage temperature		- 40 to 110	°C

Note. Above parameters are guaranteed independently.

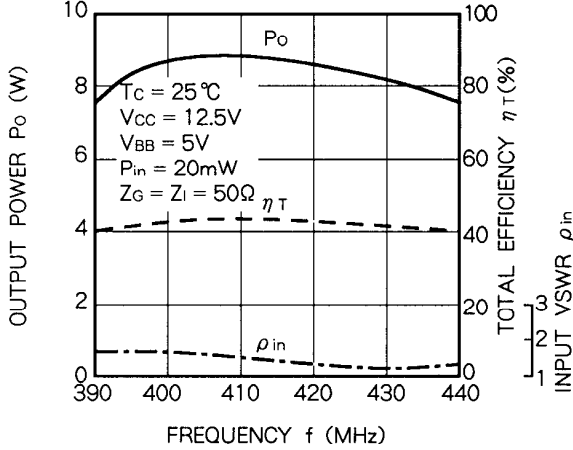
## ELECTRICAL CHARACTERISTICS (Tc = 25°C unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range	$P_{in} = 20mW$ $V_{BB} = 5V$ $V_{cc} = 12.5V$ $Z_G = Z_L = 50 \Omega$	400	430	MHz
Po	Output power		7		W
$\eta_T$	Total efficiency		35		%
2fo	2nd. harmonic			- 25	dBc
3fo	3rd. harmonic			- 30	dBc
$\rho_{in}$	Input VSWR			2.5	-
-	Load VSWR tolerance	$V_{cc2} = 13.2V, V_{BB} = 5V, P_{in} = 20mW$ $P_o = 7W$ (Vcc1 : controlled) Load VSWR = 20 : 1 (All phase), $Z_G = 50\Omega$	No degradation or destroy		-

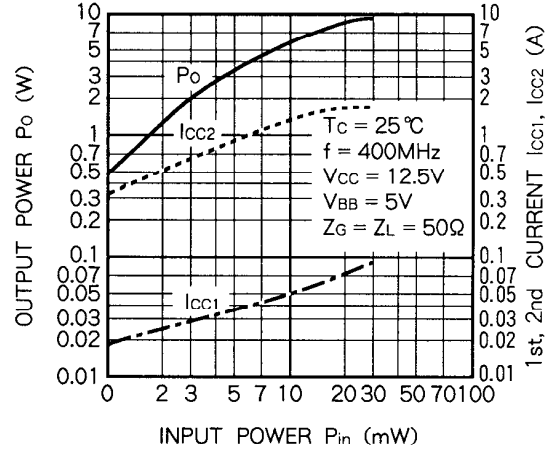
Note. Above parameters, ratings, limits and conditions are subject to change.

TYPICAL PERFORMANCE DATA

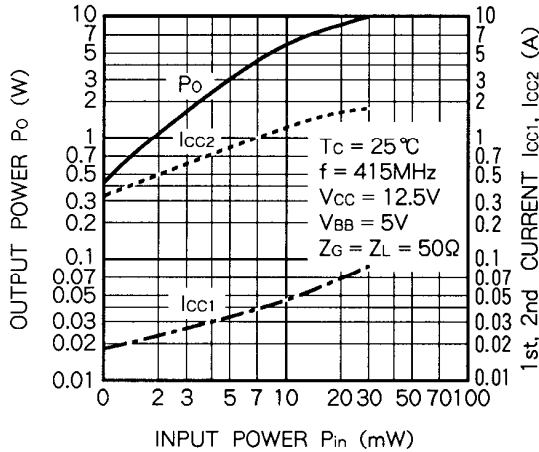
OUTPUT POWER, TOTAL EFFICIENCY, INPUT VSWR VS. FREQUENCY CHARACTERISTICS



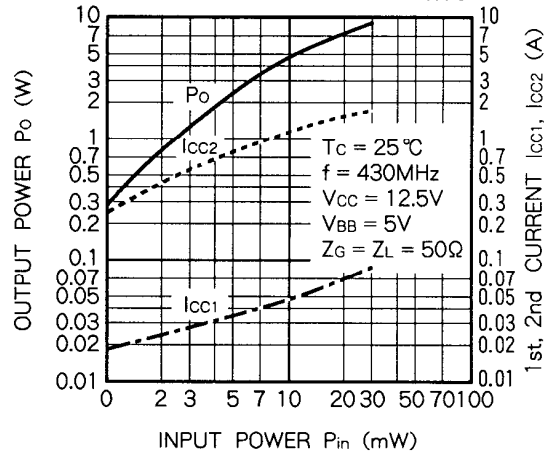
OUTPUT POWER, 1st, 2nd CURRENT VS. INPUT POWER CHARACTERISTICS



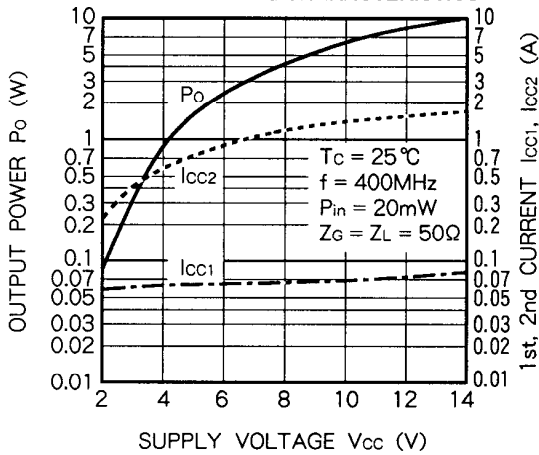
OUTPUT POWER, 1st, 2nd CURRENT VS. INPUT POWER CHARACTERISTICS



OUTPUT POWER, 1st, 2nd CURRENT VS. INPUT POWER CHARACTERISTICS



OUTPUT POWER, 1st, 2nd CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS



OUTPUT POWER, 1st, 2nd CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS

