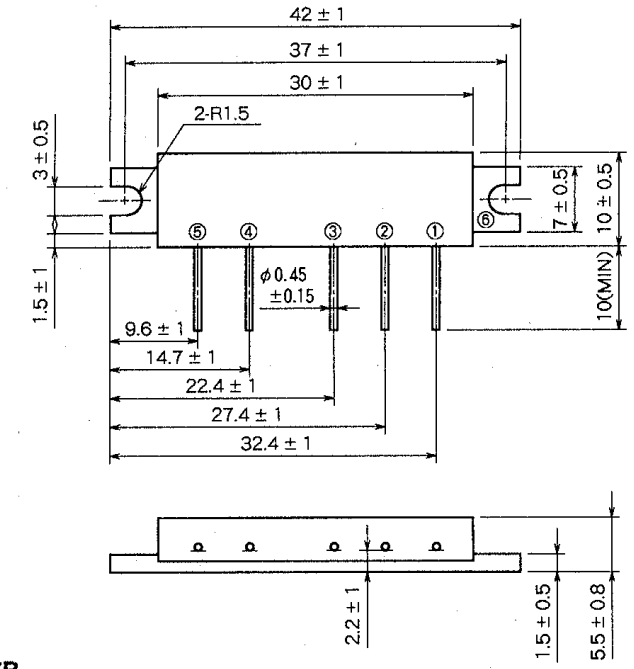
M67749MR

430-450MHz, 12.5V, 7W, FM PORTABLE RADIO

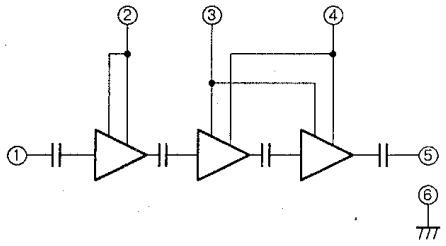
OUTLINE DRAWING

Dimensions in mm



H27R

BLOCK DIAGRAM



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

ABSOLUTE MAXIMUM RATINGS (Tc = 25℃ unless otherwise noted)

Symbol	Parameter	Conditions	Ratings	Unit
V_{CC}	Supply voltage	$V_{BB} \leqq 5V$	16	V
V_{BB}	Base bias	$V_{CC} \leqq 12.5V$	6	V
I_{CC}	Total current		4	A
$P_{in(max)}$	Input power	$Z_G = Z_L = 50\ \Omega$, $V_{CC1} \leqq 12.5V$	40	mW
$P_{O(max)}$	Output power	$Z_G = Z_L = 50\ \Omega$	10	W
$T_{C(OP)}$	Operation case temperature		−30 to 110	℃
T_{stg}	Storage temperature		−40 to 110	℃

Note. Above parameters are guaranteed independently.

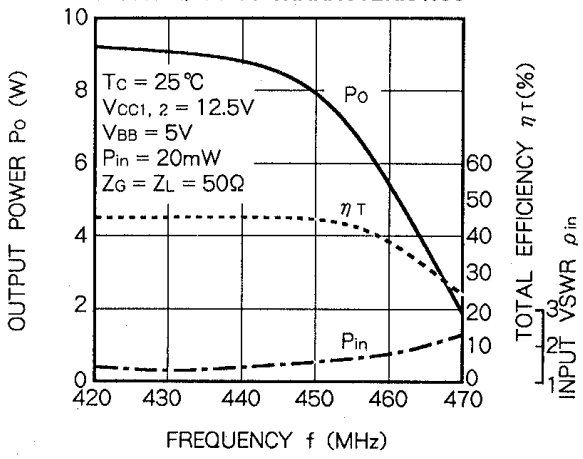
ELECTRICAL CHARACTERISTICS (Tc = 25℃ unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range	P_{in} = 20mW V_{BB} = 5V $V_{CC1,2}$ = 12.5V $Z_G = Z_L = 50\ \Omega$	430	450	MHz
P_O	Output power		7		W
η_T	Total efficiency		38		%
2fo	2nd. harmonic			−25	dBc
3fo	3rd. harmonic			−30	dBc
ρ in	Input VSWR			2.5	−
−	Load VSWR tolerance	V_{CC2} = 13.2V, V_{BB} = 5V, P_{in} = 20mW P_O = 7W (V_{CC1} : controlled) Load VSWR=20:1(All phase), 2sec. Z_G = 50Ω	No degradation or destroy		−

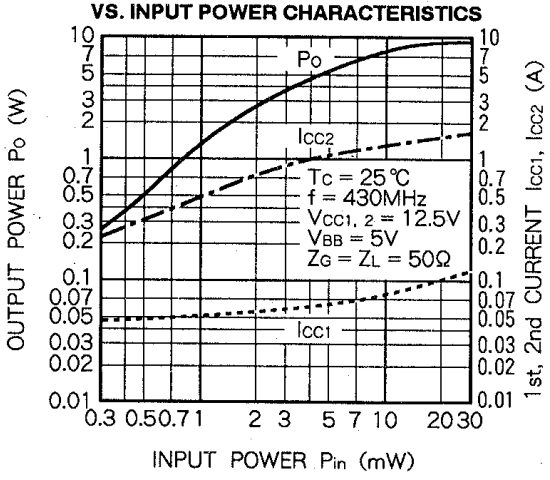
Note. Above parameters, ratings, limits and conditions are subject to change.

TYPICAL PERFORMANCE DATA

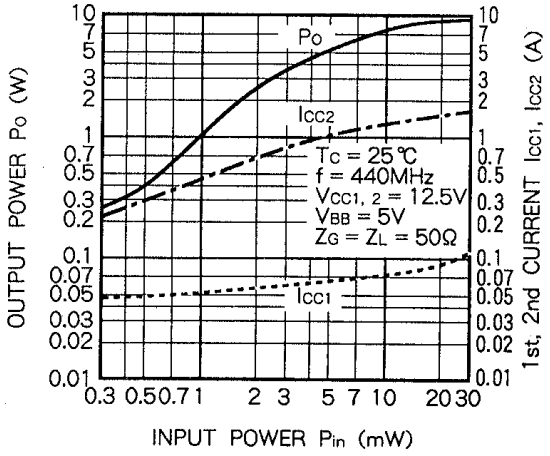
OUTPUT POWER, TOTAL EFFICIENCY, INPUT VSWR VS. FREQUENCY CHARACTERISTICS



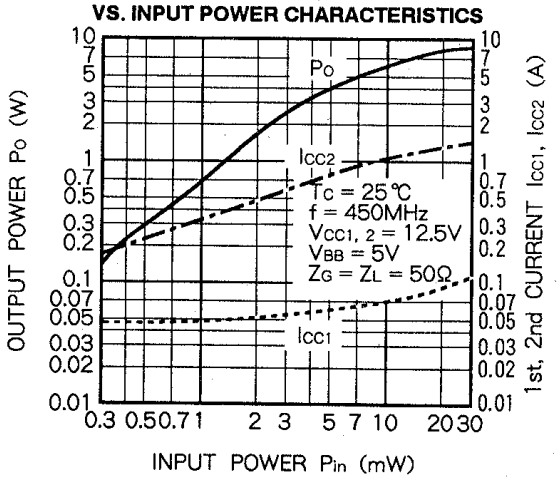
OUTPUT POWER, 1st, 2nd CURRENT VS. INPUT POWER CHARACTERISTICS



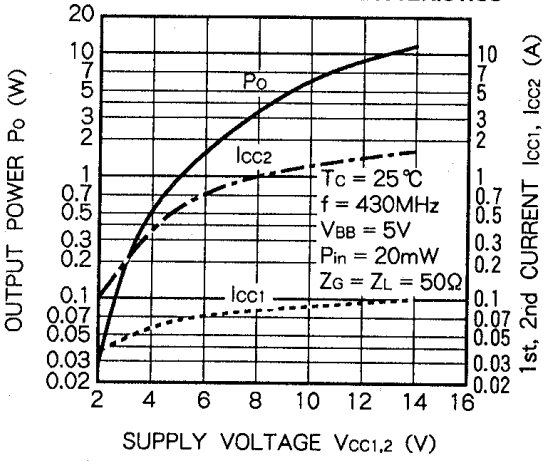
OUTPUT POWER, 1st, 2nd CURRENT VS. INPUT POWER CHARACTERISTICS



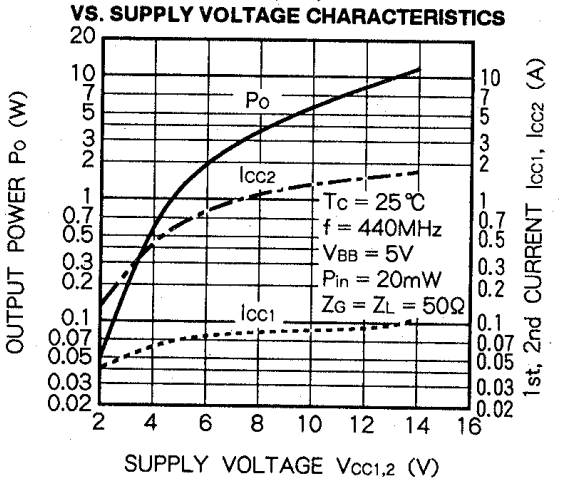
OUTPUT POWER, 1st, 2nd CURRENT VS. INPUT POWER CHARACTERISTICS



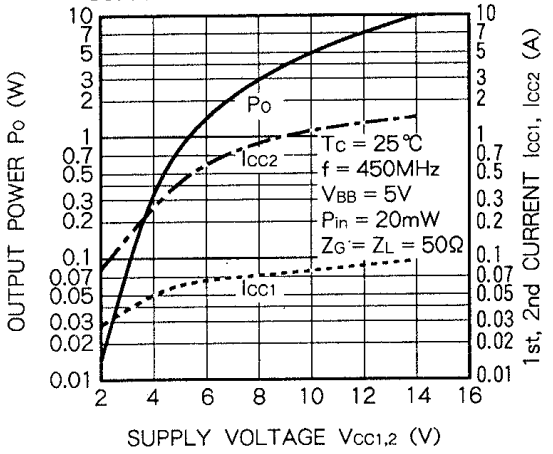
OUTPUT POWER, 1st, 2nd CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS



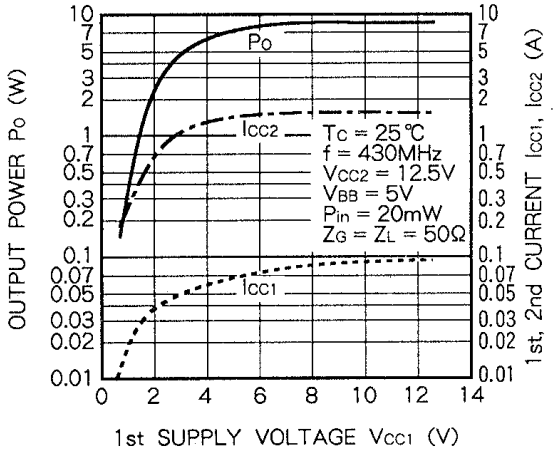
OUTPUT POWER, 1st, 2nd CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS



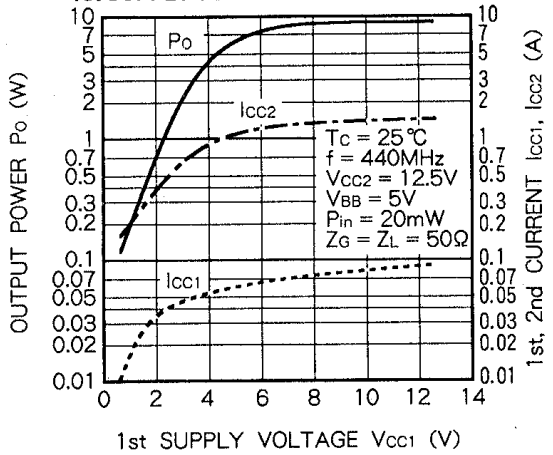
OUTPUT POWER, 1st, 2nd CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS



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



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



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

