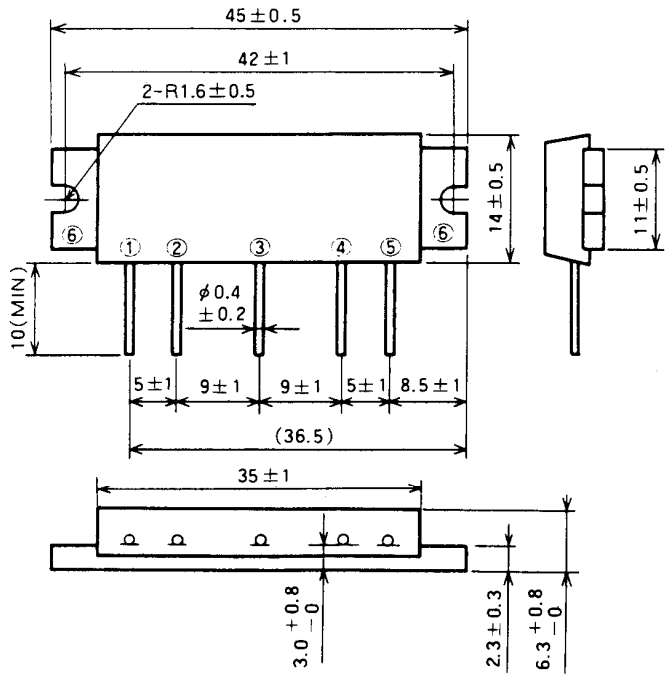
M67755L

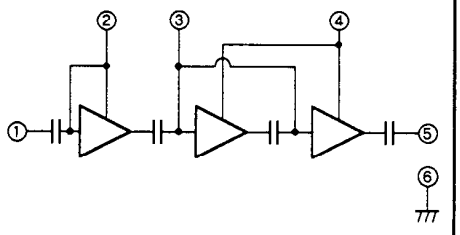
135-150MHz, 7.2V, 7W, FM PORTABLE RADIO

OUTLINE DRAWING Dimensions in mm



H12

BLOCK DIAGRAM



PIN :
① Pin : RF INPUT
② V_{CC1} : 1st. DC SUPPLY
③ V_{BB} : BASE BIAS SUPPLY
④ V_{CC2} : 2nd. DC SUPPLY
⑤ Po : RF OUTPUT
⑥ GND : FIN

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

Symbol	Parameter	Conditions	Ratings	Unit
V_{CC}	Supply voltage	V_{BB} = 5V	9	V
V_{BB}	Base bias	$V_{CC} \leqq 7.2V$	5.5	V
I_{CC}	Total current		4	A
$P_{in(max)}$	Input power	$Z_G = Z_L = 50\,\Omega$, $V_{CC1} \leqq 7.2V$	4	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 (T_C = 25℃ unless otherwise noted)

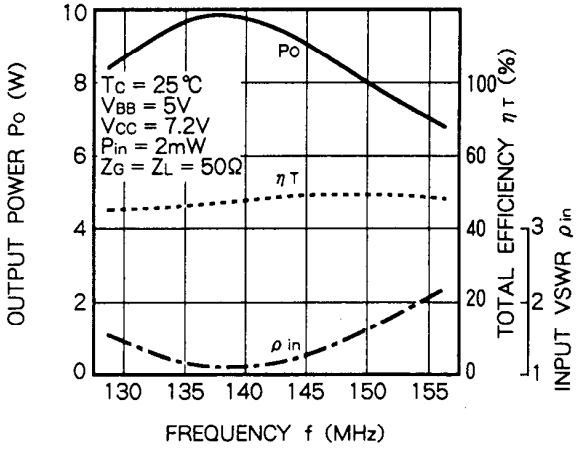
Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range	P_{in} = 2mW V_{BB} = 5V V_{CC} = 7.2V $Z_G = Z_L = 50\,\Omega$	135	150	MHz
Po	Output power		7		W
η_T	Total efficiency		40		%
2fo	2nd. harmonic			−25	dBc
3fo	3rd. harmonic			−30	dBc
ρ_{in}	Input VSWR			3.5	−
−	Load VSWR tolerance	V_{CC2} = 9V, V_{BB} = 5V, P_{in} = 2mW Po = 7W (V_{CC1} : controlled) Load VSWR=20:1 (All phase), 2sec. Z_G = 50 Ω	No degradation or destroy		−

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

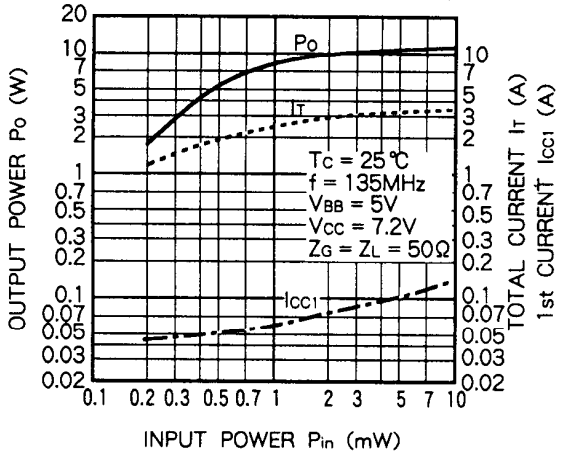
MITSUBISHI ELECTRIC

TYPICAL PERFORMANCE DATA

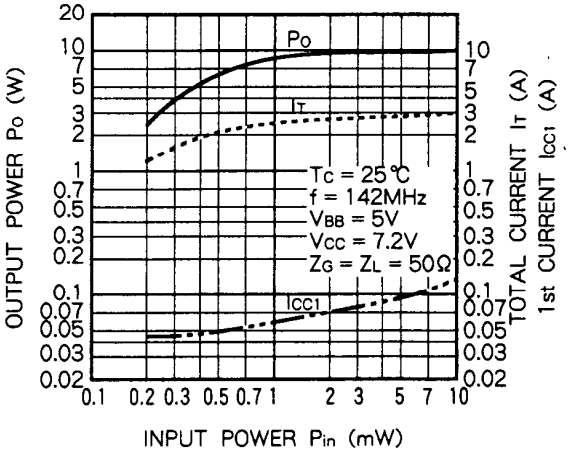
OUTPUT POWER, TOTAL CURRENT, INPUT VSWR VS. FREQUENCY CHARACTERISTICS



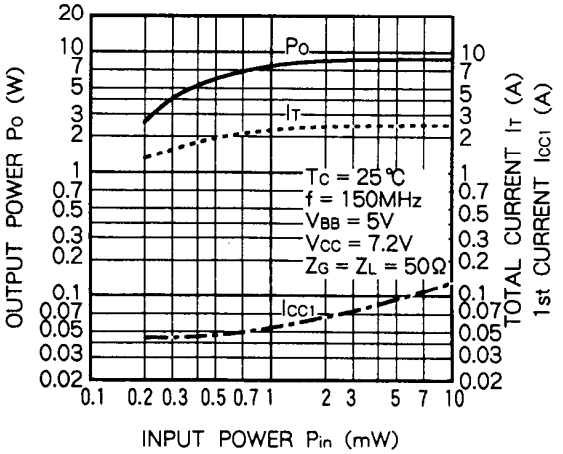
OUTPUT POWER, TOTAL CURRENT, FIRST CURRENT VS. INPUT POWER



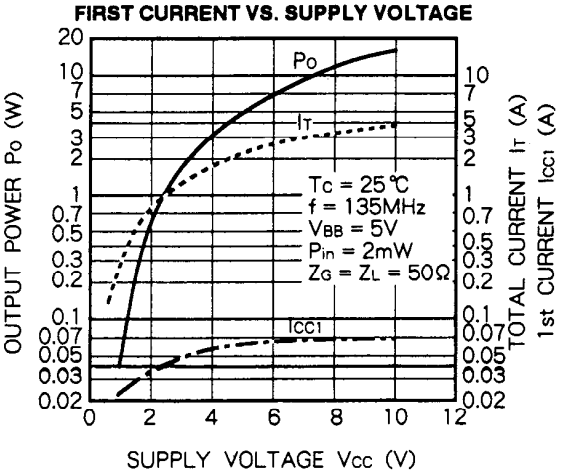
OUTPUT POWER, TOTAL CURRENT, FIRST CURRENT VS. INPUT POWER



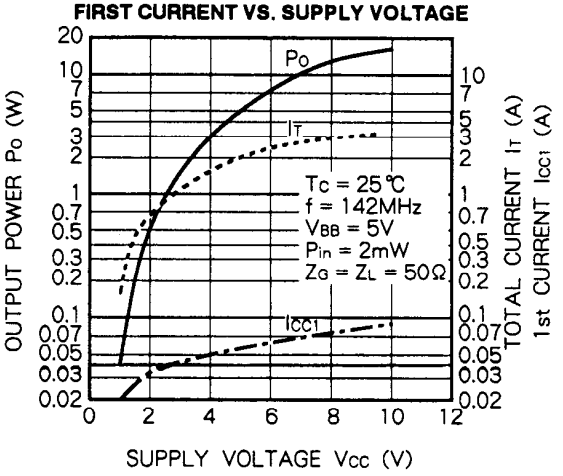
OUTPUT POWER, TOTAL CURRENT, FIRST CURRENT VS. INPUT POWER



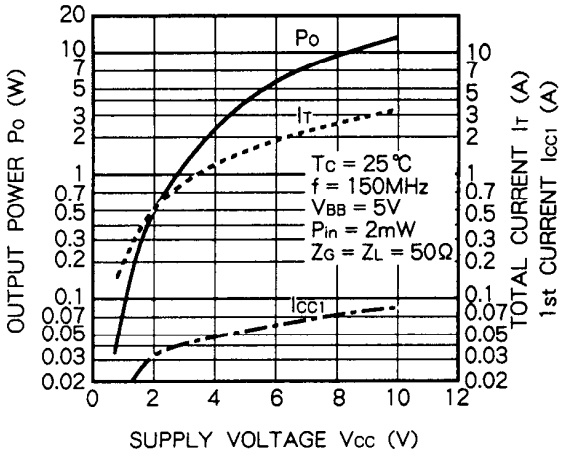
OUTPUT POWER, TOTAL CURRENT, FIRST CURRENT VS. SUPPLY VOLTAGE



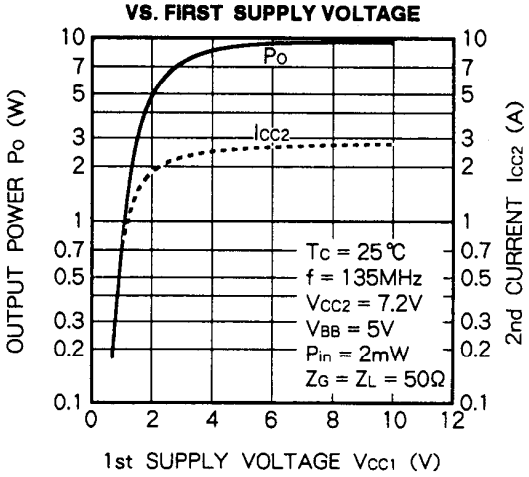
OUTPUT POWER, TOTAL CURRENT, FIRST CURRENT VS. SUPPLY VOLTAGE



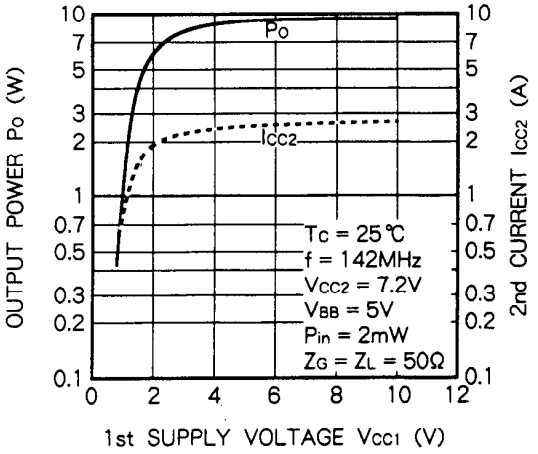
OUTPUT POWER, TOTAL CURRENT, FIRST CURRENT VS. SUPPLY VOLTAGE



OUTPUT POWER, FINAL CURRENT VS. FIRST SUPPLY VOLTAGE



OUTPUT POWER, FINAL CURRENT VS. FIRST SUPPLY VOLTAGE



OUTPUT POWER, FINAL CURRENT VS. FIRST SUPPLY VOLTAGE