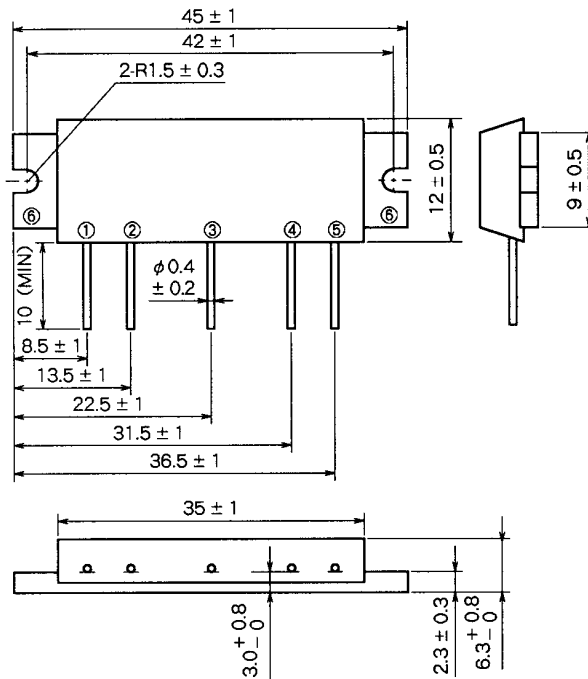


M67715

1240-1300MHz, 8V, 1.2W, SSB PORTABLE RADIO

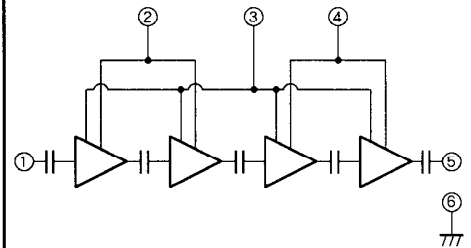
OUTLINE DRAWING

Dimensions in mm



H13

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 (T_c = 25 °C unless otherwise noted)

Symbol	Parameter	Conditions	Ratings	Unit
V _{CC1}	Supply voltage		9	V
V _{CC2}			16	V
V _{BB}	Base bias		9	V
I _{CC}	Total current		1.5	A
P _{in(max)}	Input power	Z _G = Z _L = 50 Ω	10	mW
P _{O(max)}	Output power	Z _G = Z _L = 50 Ω	4	W
T _{C(OP)}	Operation case temperature		- 20 to 100	°C
T _{stg}	Storage temperature		- 40 to 110	°C

Note. Above parameters are guaranteed independently.

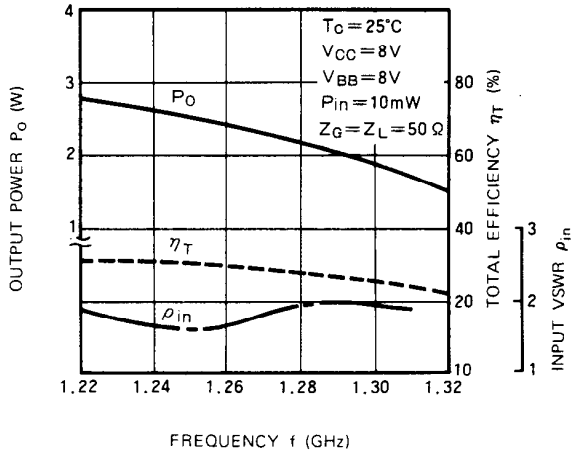
ELECTRICAL CHARACTERISTICS (T_c = 25 °C unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range	V _{CC1} = V _{CC2} = V _{BB} = 8V P _{in} = 10mW Z _G = Z _L = 50 Ω	1240	1300	MHz
P _O	Output power		1.2		W
η _T	Total efficiency		18		%
2f _o	2nd. harmonic			- 30	dBc
3f _o	3rd. harmonic			- 35	dBc
ρ _{in}	Input VSWR		2.5	-	
-	Load VSWR tolerance	V _{CC1} = 9V, V _{CC2} = 15.2V, V _{BB} = 9V P _O = 1.5W (P _{in} : controlled), Z _G = 50Ω Load VSWR=10:1 (All phase), 5sec	No degradation or destroy		-
IMD ₃	3rd. inter modulation distortion	V _{CC1} =V _{CC2} =V _{BB} =8V P _{O(PEP)} =1.26W, Δf=20kHz, Z _G =Z _L =50Ω		- 23	dBc
IMD ₅	5th. inter modulation distortion	V _{CC1} =V _{CC2} =V _{BB} =8V P _{O(PEP)} =1.26W, Δf=20kHz, Z _G =Z _L =50Ω		- 30	dBc

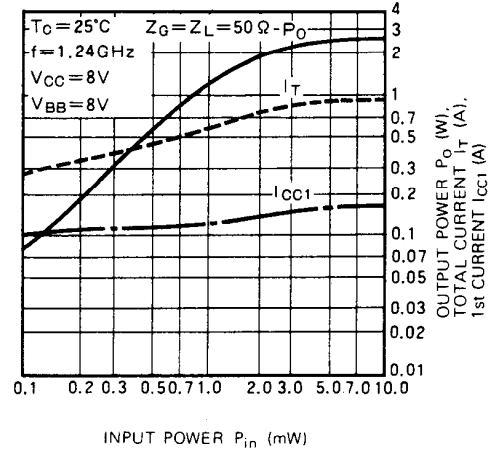
Note. Above parameters, ratings, limits and conditions are subject to change.

TYPICAL PERFORMANCE DATA

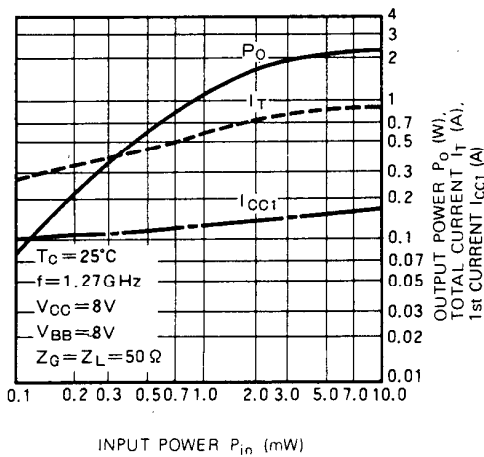
OUTPUT POWER, TOTAL EFFICIENCY, ρ_{in} VS. FREQUENCY CHARACTERISTICS



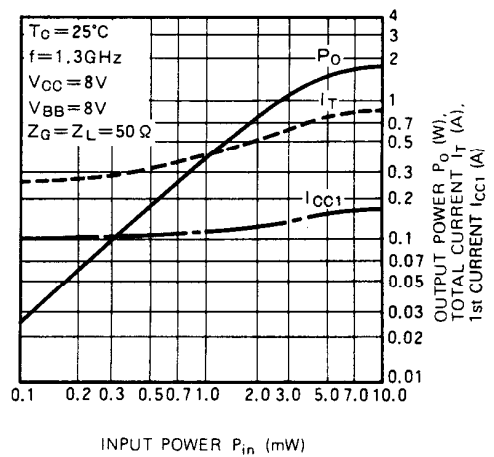
OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS. INPUT POWER CHARACTERISTICS



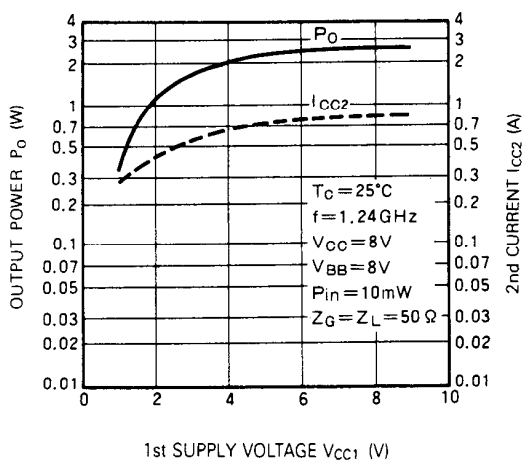
OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS. INPUT POWER CHARACTERISTICS



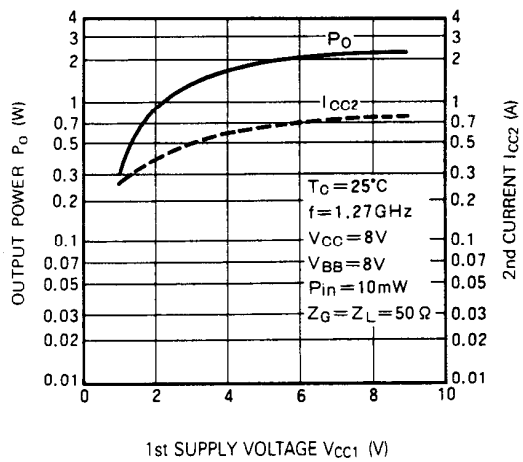
OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS. INPUT POWER CHARACTERISTICS



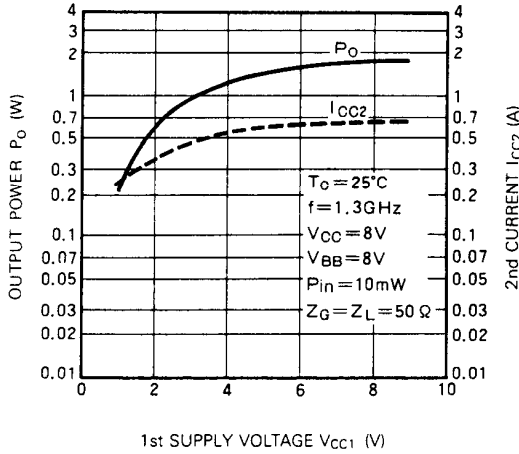
OUTPUT POWER, 2nd CURRENT VS. 1st SUPPLY VOLTAGE CHARACTERISTICS



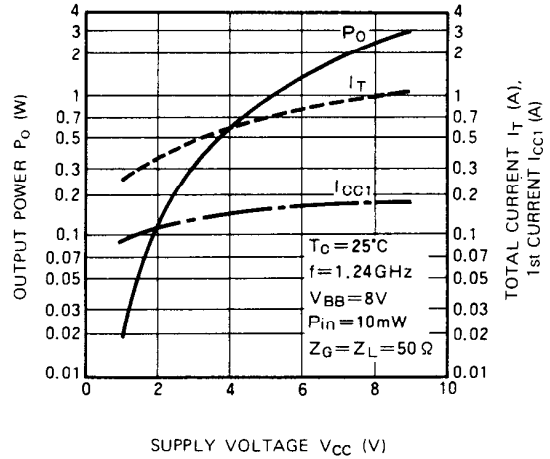
OUTPUT POWER, 2nd CURRENT VS. 1st SUPPLY VOLTAGE CHARACTERISTICS



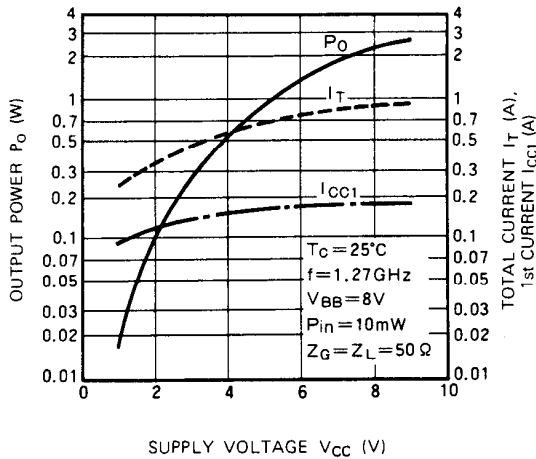
OUTPUT POWER, 2nd CURRENT VS. 1st SUPPLY VOLTAGE CHARACTERISTICS



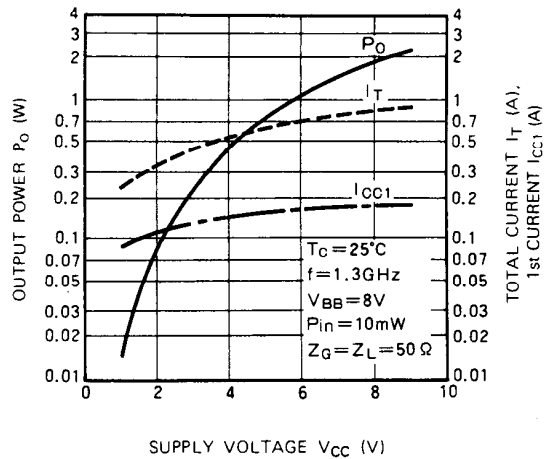
OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS



OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS



OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS



2nd, 3rd HARMONIC VS. FREQUENCY CHARACTERISTICS

