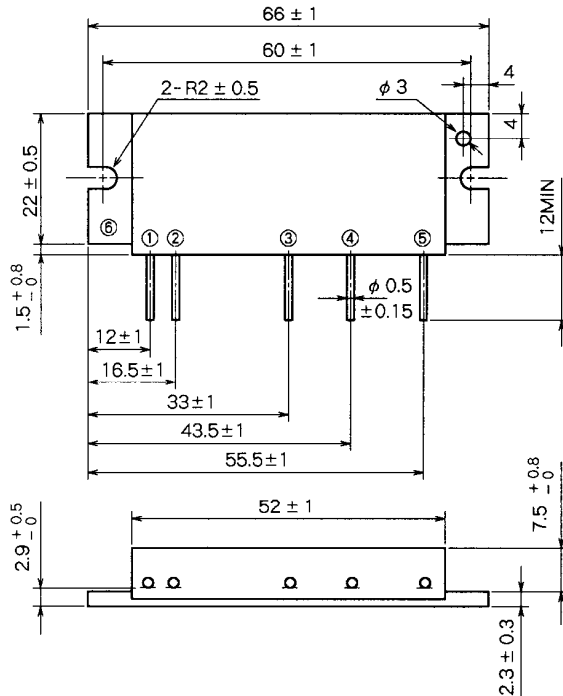


M57762

1240-1300MHz, 12.5V, 18W, SSB MOBILE RADIO

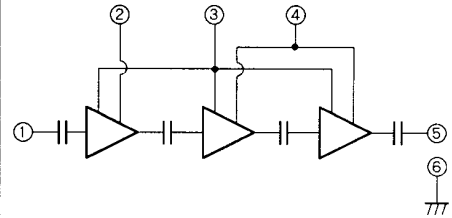
OUTLINE DRAWING

Dimensions in mm



H3

BLOCK DIAGRAM



PIN :

- ① P_{in} : RF INPUT
- ② V_{CC1} : 1st. DC SUPPLY
- ③ V_{BB} : BASE BIAS SUPPLY
- ④ V_{CC2} : 2nd. DC SUPPLY
- ⑤ P_o : RF OUTPUT
- ⑥ GND : FIN

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

Symbol	Parameter	Conditions	Ratings	Unit
V _{CC}	Supply voltage		17	V
V _{BB}	Base bias		10	V
I _{CC}	Total current		8	A
P _{in(max)}	Input power	V _{CC1} =12.5V, V _{BB} =9V, Z _G =Z _L =50 Ω	2	W
P _{o(max)}	Output power	Z _G = Z _L = 50 Ω	25	W
T _{c(OP)}	Operation case temperature		- 30 to 110	°C
T _{stg}	Storage temperature		- 40 to 110	°C

Note. Above parameters are guaranteed independently.

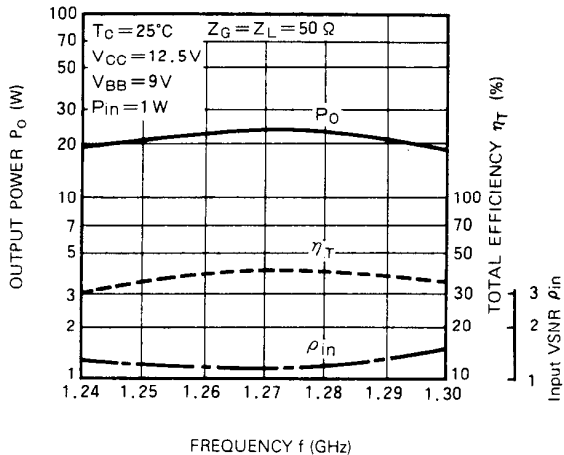
ELECTRICAL CHARACTERISTICS (T_c = 25 °C unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit	
			Min	Max		
f	Frequency range	V _{CC1} = V _{CC2} = 12.5V V _{BB} = 9V P _{in} = 1W Z _G = Z _L = 50 Ω	1240	1300	MHz	
P _o	Output power		18		W	
η _T	Total efficiency		28		%	
2f _o	2nd. harmonic			- 45	dBc	
ρ _{in}	Input VSWR			2.0	-	
I _{BB}	Base bias current			500	mA	
G _P	Linear power gain		V _{CC1} = V _{CC2} = 12.5V, V _{BB} = 9V, P _{in} = 10dBm, Z _G = Z _L = 50 Ω	13		dB
IMD ₃	3rd. intermodulation distortion		V _{CC1} =V _{CC2} =12.5V, V _{BB} =9V, Δf=10kHz, P _{o(PEP)} ≤ 14W, Z _G =Z _L =50 Ω		- 24	dBc
IMD ₅	5th. intermodulation distortion			- 31	dBc	
-	Load VSWR tolerance	V _{CC1} = V _{CC2} = 15.2V, V _{BB} = 9V, P _o = 18W (P _{in} : controlled), Z _G = 50 Ω Load VSWR = 16 : 1 (All phase).	No degradation or destroy		-	

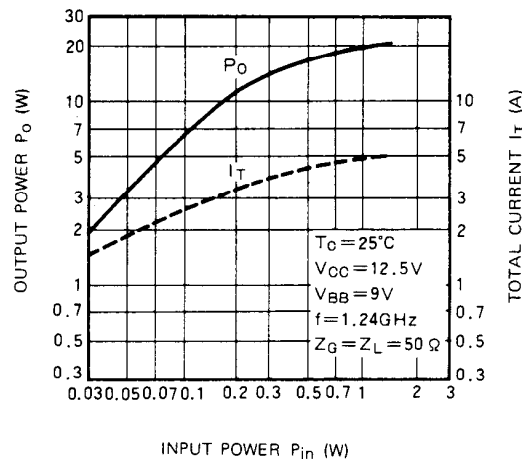
Note. Above parameters, ratings, limits and conditions are subject to change.

TYPICAL PERFORMANCE DATA

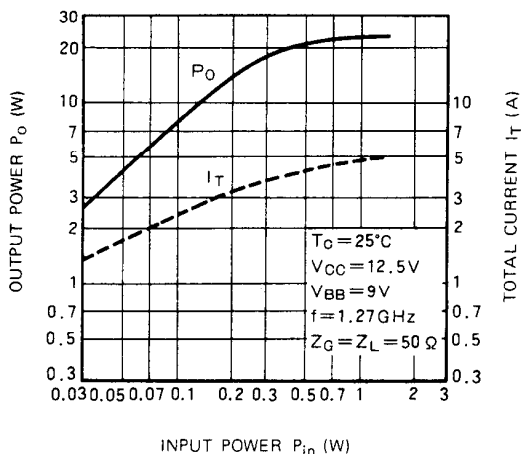
OUTPUT POWER, TOTAL EFFICIENCY, INPUT VSWR VS. FREQUENCY CHARACTERISTICS



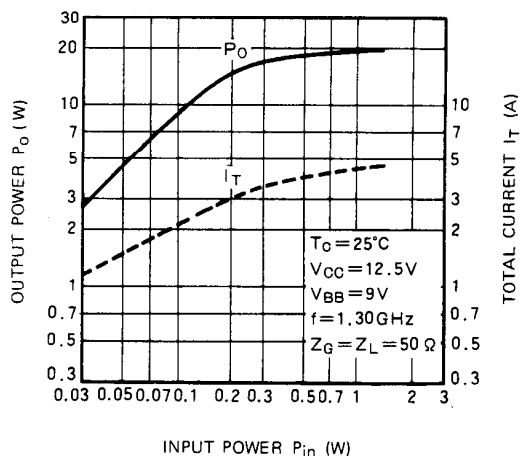
OUTPUT POWER, TOTAL CURRENT, VS. INPUT POWER CHARACTERISTICS



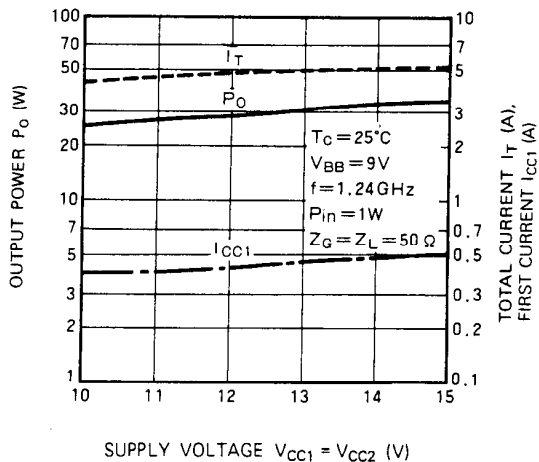
OUTPUT POWER, TOTAL CURRENT, VS. INPUT POWER CHARACTERISTICS



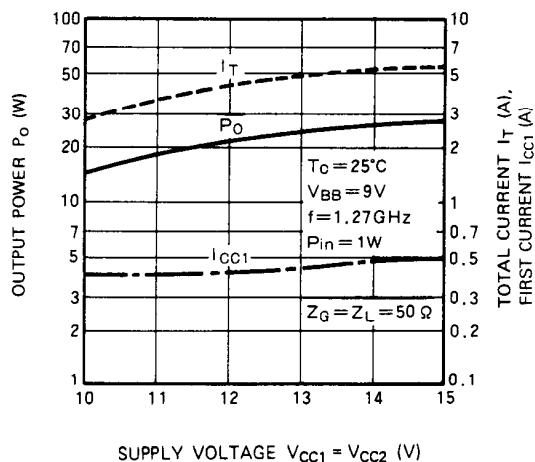
OUTPUT POWER, TOTAL CURRENT, VS. INPUT POWER CHARACTERISTICS



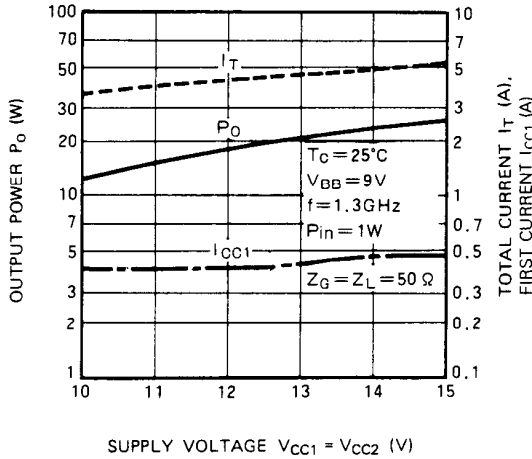
OUTPUT POWER, TOTAL CURRENT, FIRST CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS



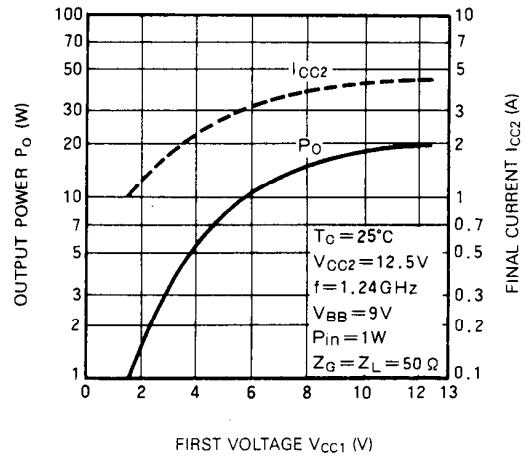
OUTPUT POWER, TOTAL CURRENT, FIRST CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS



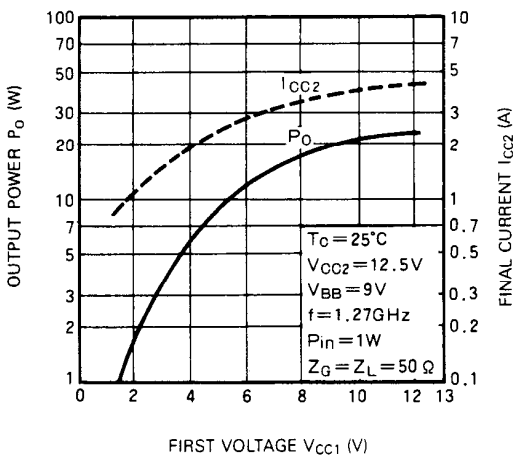
OUTPUT POWER, TOTAL CURRENT, FIRST CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS



OUTPUT POWER, FINAL CURRENT VS. FIRST VOLTAGE CHARACTERISTICS



OUTPUT POWER, FINAL CURRENT VS. FIRST VOLTAGE CHARACTERISTICS



OUTPUT POWER, FINAL CURRENT VS. FIRST CURRENT CHARACTERISTICS

