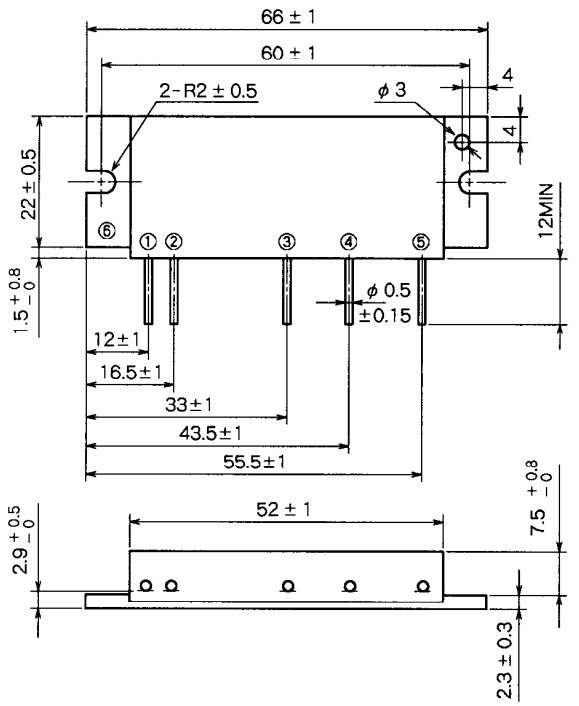
MITSUBISHI RF POWER MODULE

M67711

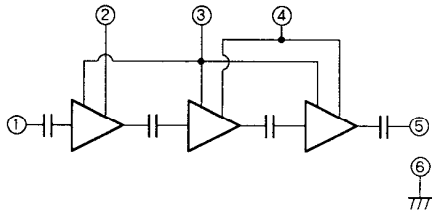
1240-1300MHz, 12.5V, 16W, FM MOBILE RADIO

OUTLINE DRAWING Dimensions in mm



H3

BLOCK DIAGRAM



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

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

Symbol	Parameter	Conditions	Ratings	Unit
$V_{CC1, 2}$	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=50Ω	2	W
$P_{O(max)}$	Output power	Z_G = Z_L = 50 Ω	20	W
$T_{C(OP)}$	Operation case temperature		−30 to 110	℃
T_{stg}	Storage temperature		−40 to 110	℃

Note. Above parameters are guaranteed independently.

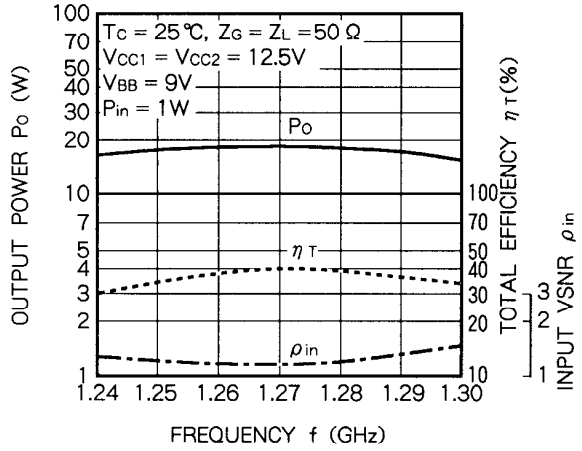
ELECTRICAL CHARACTERISTICS (Tc = 25℃ unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range	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		16		W
η_T	Total efficiency		28		%
2fo	2nd.. harmonic			−45	dBc
ρ_{in}	Input VSWR			2.0	−
−	Load VSWR tolerance	V_{CC1} = V_{CC2} = 15.2V, V_{BB} = 9V P_O = 16W (P_{in} : controlled) Load VSWR=16:1(All phase)	No degradation or destroy		−

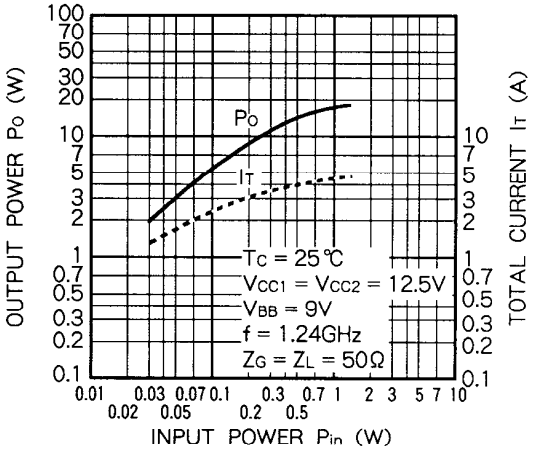
Note. Above parameters, ratings, limits and conditions are subject to change.

TYPICAL PERFORMANCE DATA

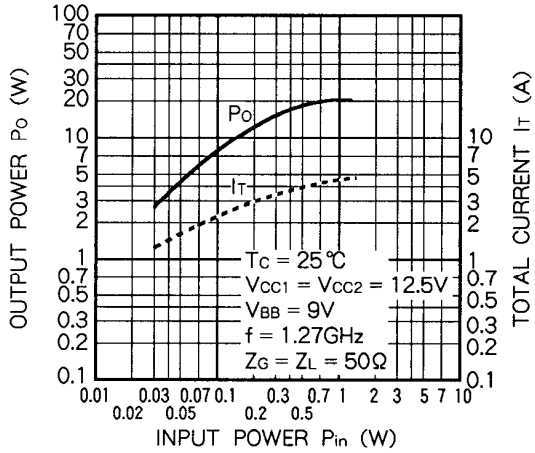
OUTPUT POWER, TOTAL EFFICIENCY, INPUT VSWR VS. FREQUENCY CHARACTERISTICS



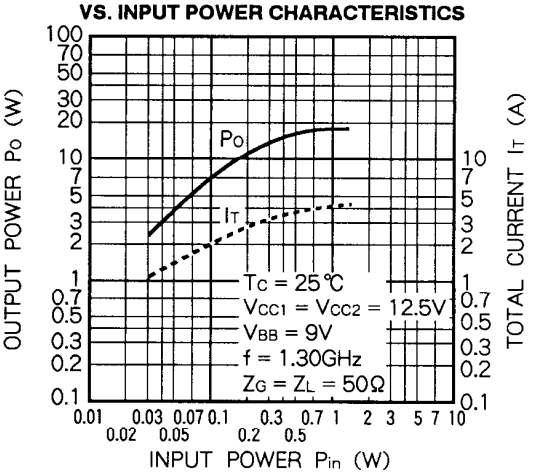
OUTPUT POWER, TOTAL CURRENT, VS. INPUT POWER CHARACTERISTICS



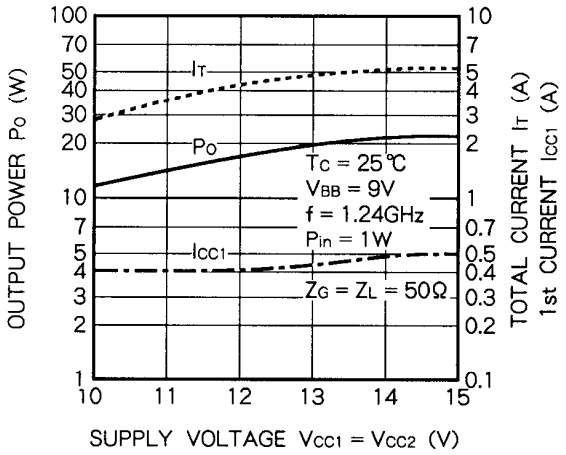
OUTPUT POWER, TOTAL CURRENT, VS. INPUT POWER CHARACTERISTICS



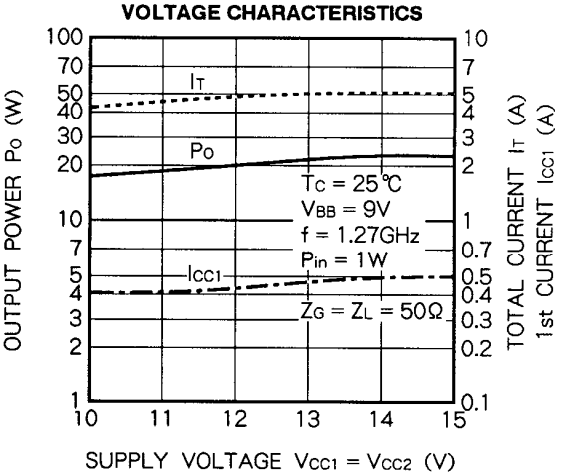
OUTPUT POWER, TOTAL CURRENT, VS. INPUT POWER CHARACTERISTICS



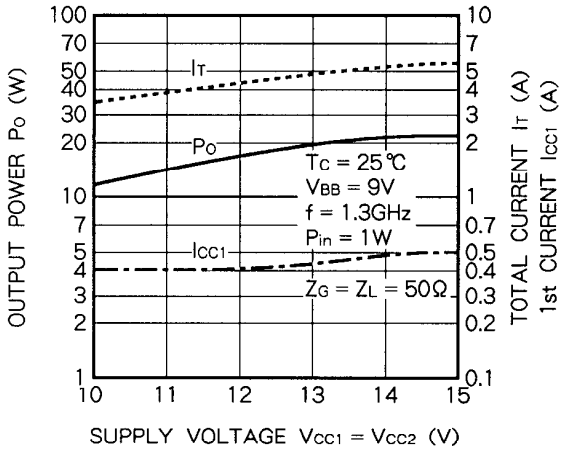
OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS



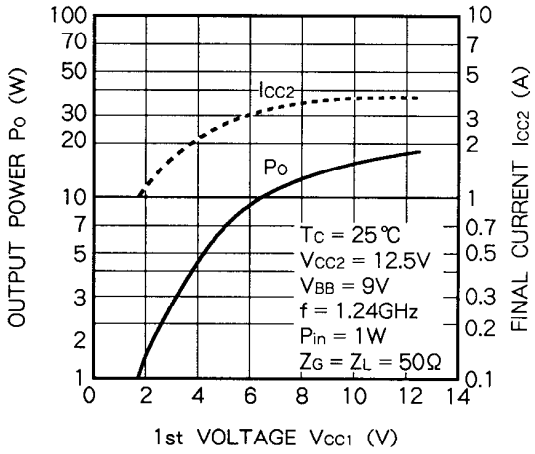
OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS



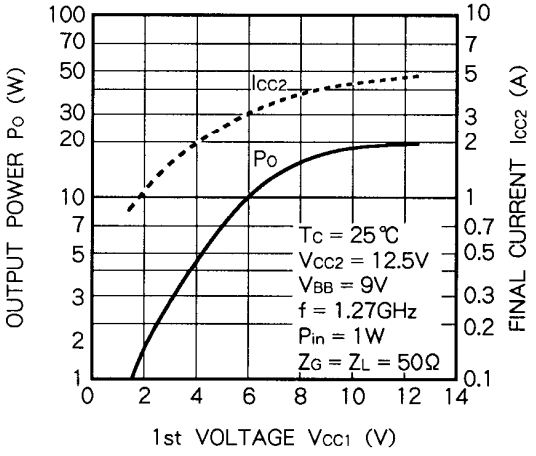
OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS



OUTPUT POWER, FINAL CURRENT VS. 1st VOLTAGE CHARACTERISTICS



OUTPUT POWER, FINAL CURRENT VS. 1st VOLTAGE CHARACTERISTICS



OUTPUT POWER, FINAL CURRENT VS. 1st VOLTAGE CHARACTERISTICS