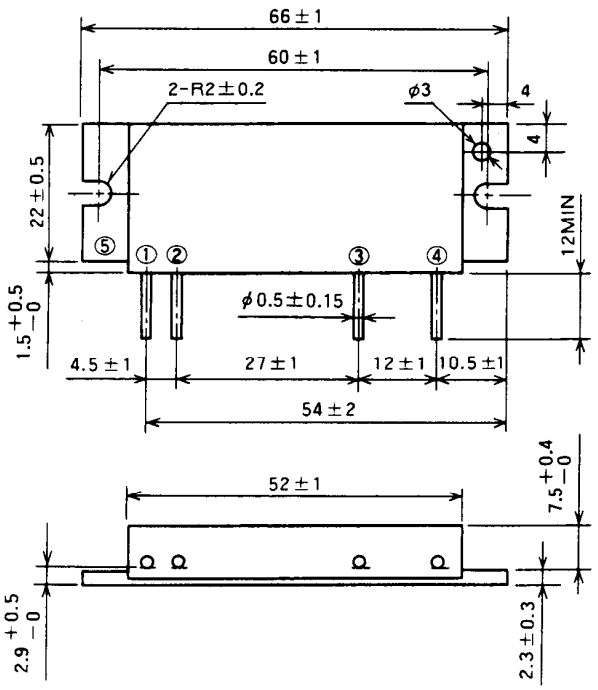
M57719L

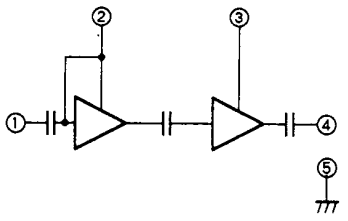
135-145MHz, 12.5V, 14W, FM MOBILE RADIO

OUTLINE DRAWING Dimensions in mm



H2

BLOCK DIAGRAM



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

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

Symbol	Parameter	Conditions	Ratings	Unit
V_{CC}	Supply voltage		17	V
I_{CC}	Total current		6	A
$P_{in(max)}$	Input power	$Z_G = Z_L = 50\ \Omega$	0.4	W
$P_{O(max)}$	Output power	$Z_G = Z_L = 50\ \Omega$	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 (T_C = 25℃ unless otherwise noted)

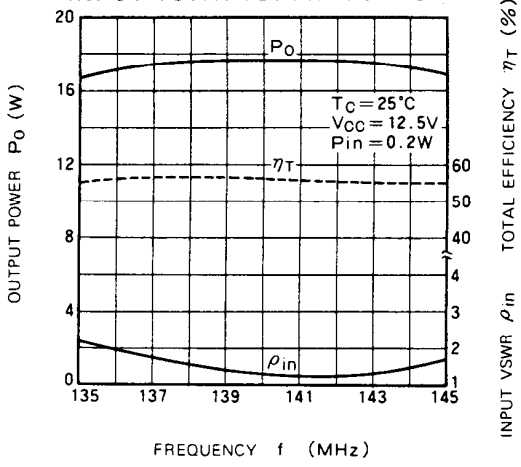
Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range	P_{in} = 0.2W V_{CC} = 12.5V $Z_G = Z_L = 50\ \Omega$	135	145	MHz
Po	Output power		14		W
η_T	Total efficiency		40		%
2fo	2nd. harmonic			− 25	dBc
3fo	3rd. harmonic			− 35	dBc
ρ_{in}	Input VSWR			4	−
−	Load VSWR tolerance	V_{CC} = 15.2V, Po = 14W (P_{in} : 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.

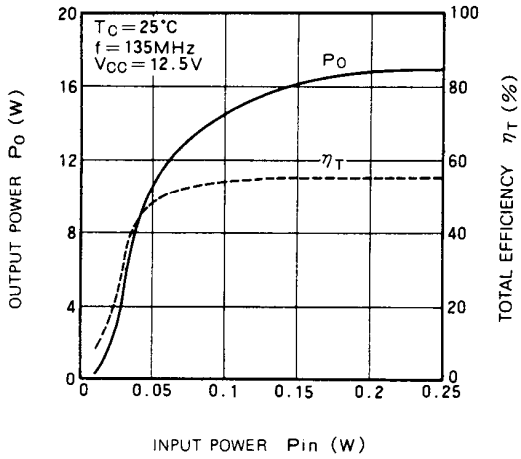
MITSUBISHI ELECTRIC

TYPICAL PERFORMANCE DATA

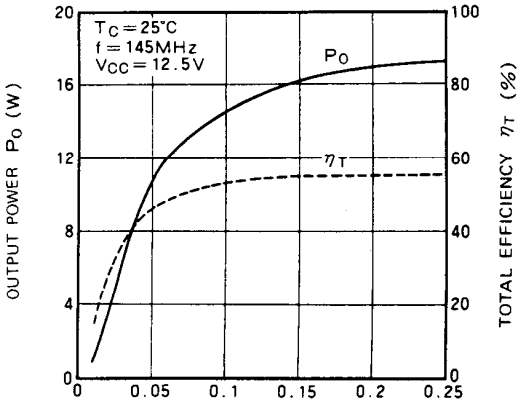
OUTPUT POWER, TOTAL EFFICIENCY, INPUT VSWR VS. FREQUENCY



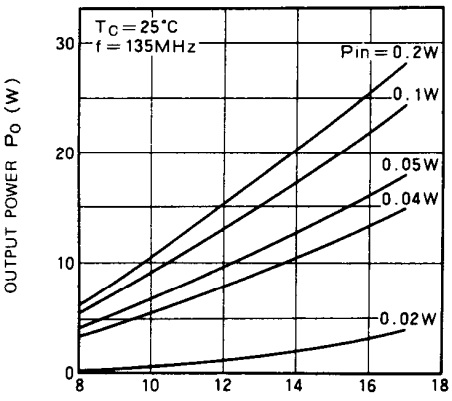
OUTPUT POWER, TOTAL EFFICIENCY, VS. INPUT POWER



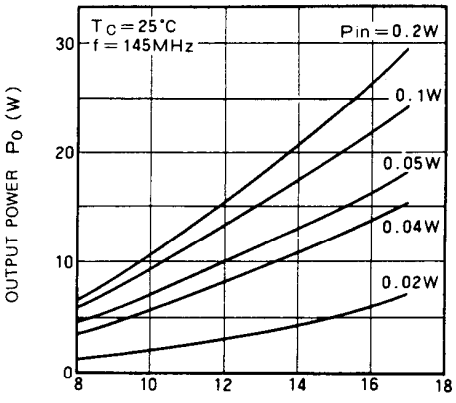
OUTPUT POWER, TOTAL EFFICIENCY, VS. INPUT POWER



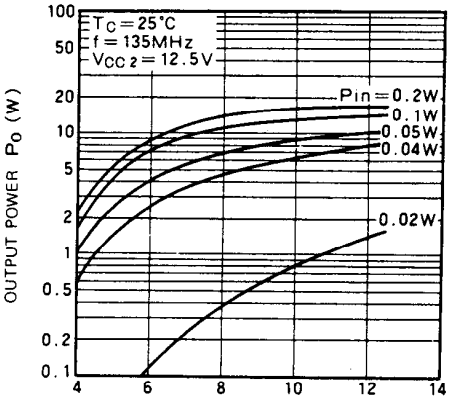
OUTPUT POWER VS. DC SUPPLY VOLTAGE



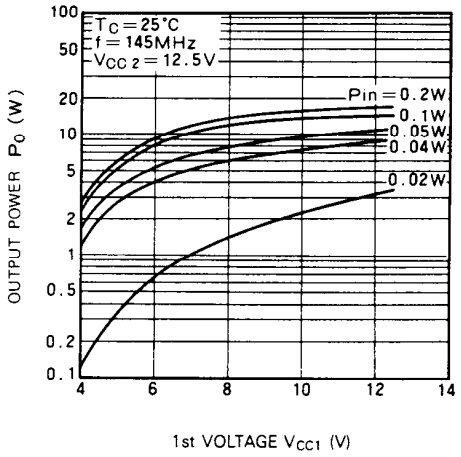
OUTPUT POWER VS. DC SUPPLY VOLTAGE



OUTPUT POWER VS. 1st VOLTAGE



OUTPUT POWER VS. 1st VOLTAGE



INPUT IMPEDANCE, OUTPUT IMPEDANCE VS. FREQUENCY

