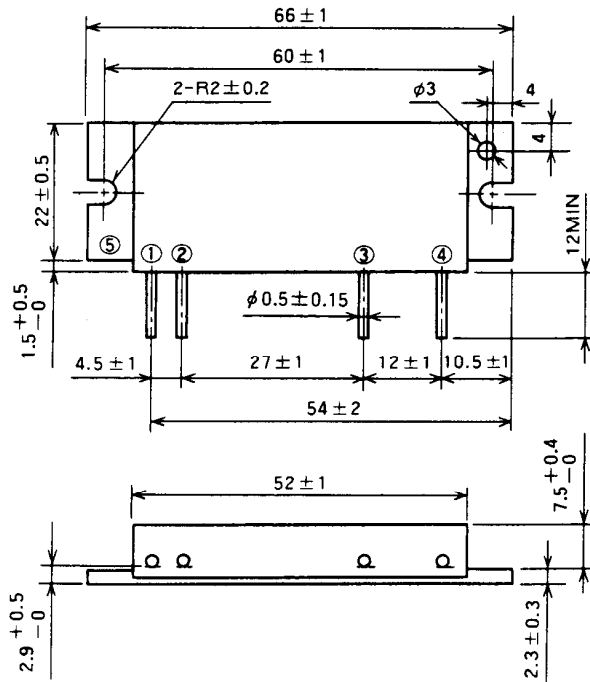


# M57719L

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

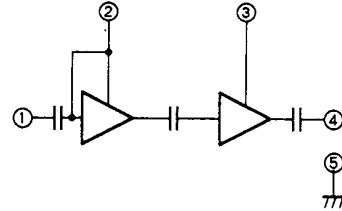
## OUTLINE DRAWING

Dimensions in mm



H2

## BLOCK DIAGRAM



PIN :

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

## ABSOLUTE MAXIMUM RATINGS (T<sub>c</sub> = 25 °C unless otherwise noted)

Symbol	Parameter	Conditions	Ratings	Unit
V <sub>cc</sub>	Supply voltage		17	V
I <sub>cc</sub>	Total current		6	A
P <sub>in(max)</sub>	Input power	Z <sub>G</sub> = Z <sub>L</sub> = 50 Ω	0.4	W
P <sub>o(max)</sub>	Output power	Z <sub>G</sub> = Z <sub>L</sub> = 50 Ω	20	W
T <sub>c(OP)</sub>	Operation case temperature		- 30 to 110	°C
T <sub>stg</sub>	Storage temperature		- 40 to 110	°C

Note. Above parameters are guaranteed independently.

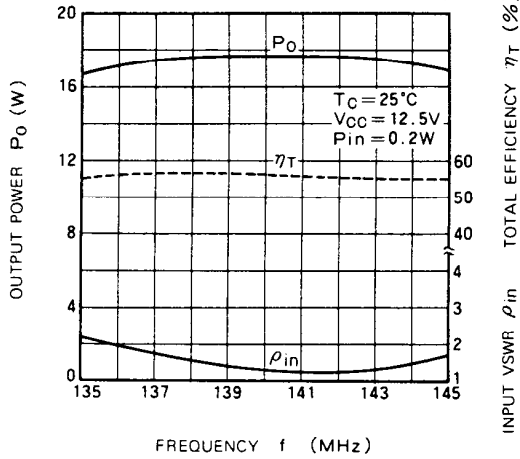
## ELECTRICAL CHARACTERISTICS (T<sub>c</sub> = 25 °C unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range	P <sub>in</sub> = 0.2W V <sub>cc</sub> = 12.5V Z <sub>G</sub> = Z <sub>L</sub> = 50 Ω	135	145	MHz
P <sub>o</sub>	Output power		14		W
η <sub>T</sub>	Total efficiency		40		%
2f <sub>o</sub>	2nd. harmonic			- 25	dBc
3f <sub>o</sub>	3rd. harmonic			- 35	dBc
ρ <sub>in</sub>	Input VSWR			4	-
-	Load VSWR tolerance	V <sub>cc</sub> = 15.2V, P <sub>o</sub> = 14W (P <sub>in</sub> : controlled) Load VSWR=20:1 (All phase), 2sec. Z <sub>G</sub> = 50Ω	No degradation or destroy		-

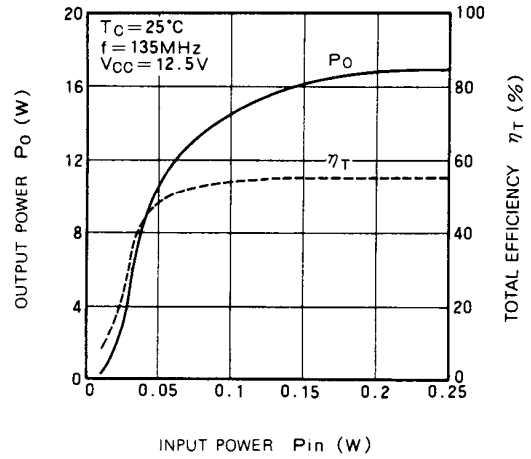
Note. Above parameters, ratings, limits and conditions are subject to change.

TYPICAL PERFORMANCE DATA

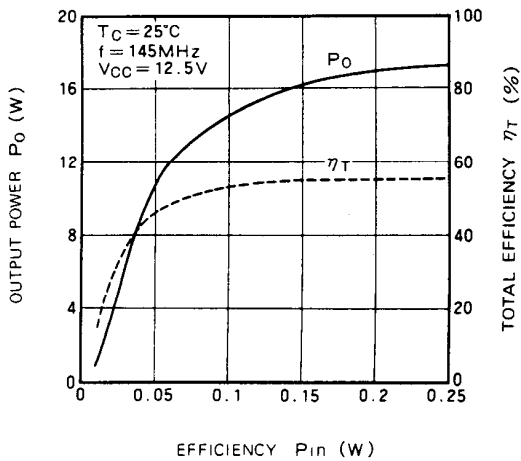
OUTPUT POWER, TOTAL EFFICIENCY, INPUT VSWR VS. FREQUENCY



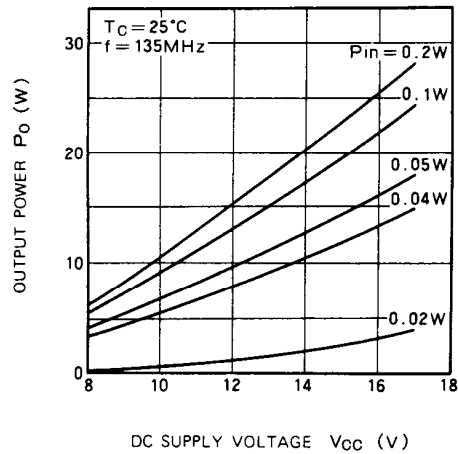
OUTPUT POWER, TOTAL EFFICIENCY, VS. INPUT POWER



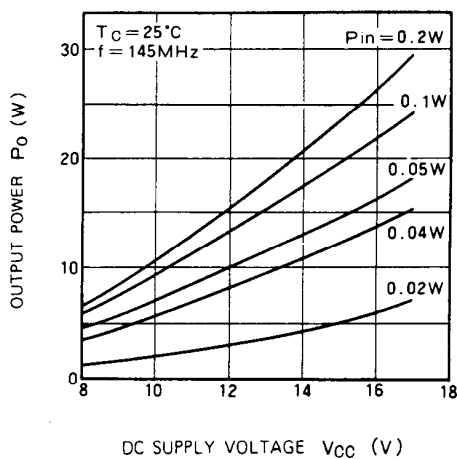
OUTPUT POWER, TOTAL EFFICIENCY, VS. INPUT POWER



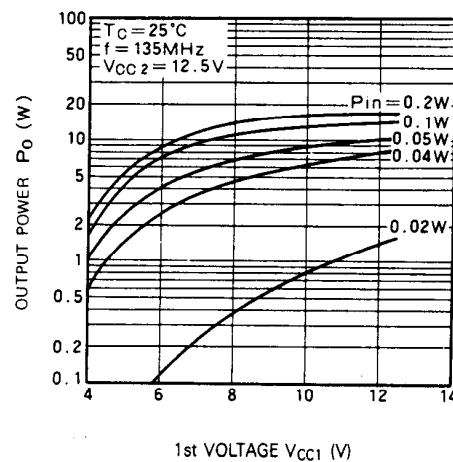
OUTPUT POWER VS. DC SUPPLY VOLTAGE



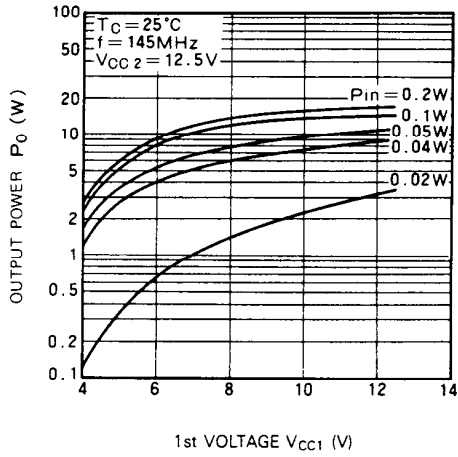
OUTPUT POWER VS. DC SUPPLY VOLTAGE



OUTPUT POWER VS. 1st VOLTAGE



OUTPUT POWER VS. 1st VOLTAGE



INPUT IMPEDANCE, OUTPUT IMPEDANCE VS. FREQUENCY

