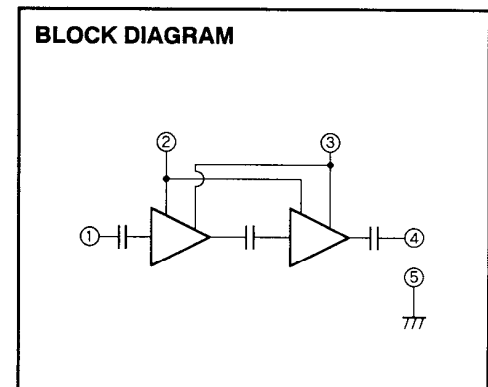
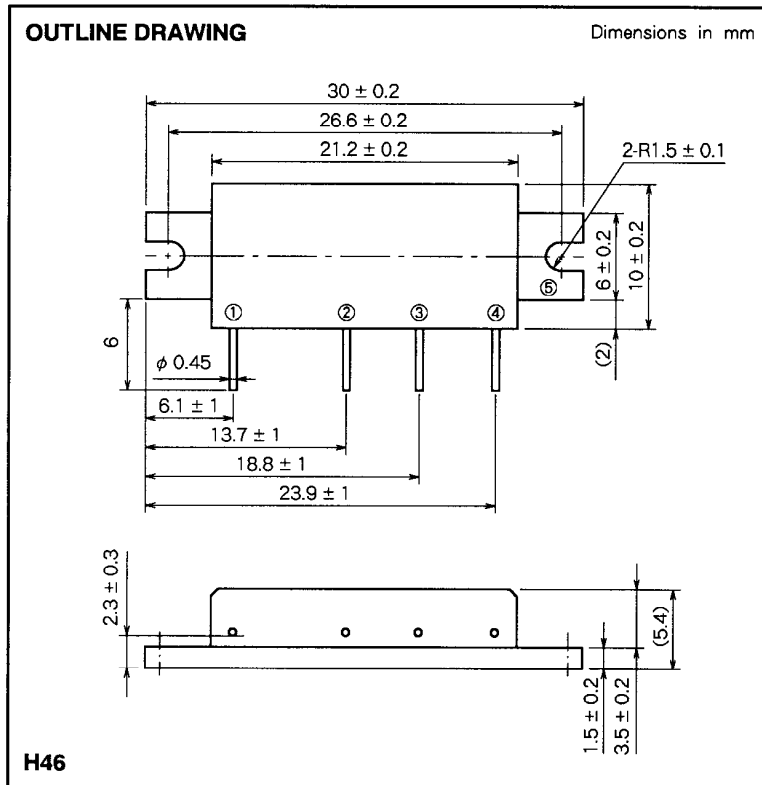


# M68710L

400-430MHz, 6V, 2W, FM PORTABLE RADIO



- PIN :
- ① P<sub>in</sub> : RF INPUT
  - ② V<sub>GG</sub> : GATE BIAS SUPPLY
  - ③ V<sub>DD</sub> : DRAIN BIAS SUPPLY
  - ④ P<sub>o</sub> : RF OUTPUT
  - ⑤ GND : FIN

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

Symbol	Parameter	Conditions	Ratings	Unit
V <sub>DD</sub>	Supply voltage	V <sub>GG</sub> ≤ 3.5V, Z <sub>G</sub> = Z <sub>L</sub> = 50Ω	9	V
V <sub>GG</sub>	Gate bias voltage		4	V
P <sub>in</sub>	Input power	f=400 to 430MHz, Z <sub>G</sub> =Z <sub>L</sub> =50Ω	30	mW
P <sub>o</sub>	Output power	f=400 to 430MHz, V <sub>DD</sub> ≤ 9V, Z <sub>G</sub> =Z <sub>L</sub> =50Ω	3	W
T <sub>C(OP)</sub>	Operation case temperature	f=400 to 430MHz, V <sub>DD</sub> ≤ 9V, Z <sub>G</sub> =Z <sub>L</sub> =50Ω	- 30 to 110	°C
T <sub>stg</sub>	Storage temperature		- 40 to 110	°C

Note. Above parameters are guaranteed independently.

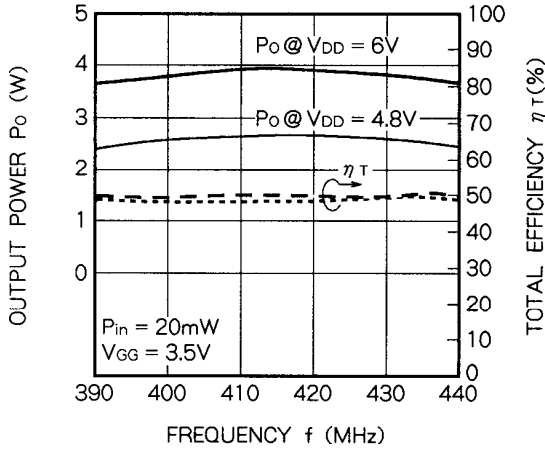
**ELECTRICAL CHARACTERISTICS** (T<sub>c</sub> = 25 °C, Z<sub>G</sub> = Z<sub>L</sub> = 50Ω, unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit	
			Min	Max		
f	Frequency range		400	430	MHz	
P <sub>o</sub>	Output power	V <sub>DD</sub> = 6V V <sub>GG</sub> = 3.5V P <sub>in</sub> = 20mW	2		W	
η <sub>T</sub>	Total efficiency		40		%	
2f <sub>o</sub>	2nd. harmonic			- 25		dBc
ρ <sub>in</sub>	Input VSWR			4		-
-	Stability	Z <sub>G</sub> = 50Ω, V <sub>DD</sub> = 4 to 9V, Load VSWR < 4 : 1	No parasitic oscillation		-	
-	Load VSWR tolerance	V <sub>DD</sub> = 9V, P <sub>in</sub> = 20mW, P <sub>o</sub> = 3W(V <sub>GG</sub> Adjust), Z <sub>L</sub> = 20 : 1	No degradation or destroy		-	

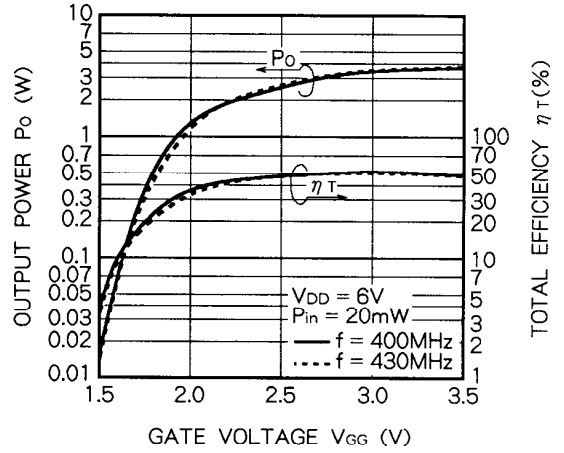
Note : Above parameters, ratings, limits and conditions are subject to change.

TYPICAL PERFORMANCE DATA

OUTPUT POWER, TOTAL EFFICIENCY VS. FREQUENCY CHARACTERISTICS



OUTPUT POWER, TOTAL EFFICIENCY VS. GATE VOLTAGE CHARACTERISTICS



OUTPUT POWER, TOTAL EFFICIENCY VS. SUPPLY VOLTAGE CHARACTERISTICS

