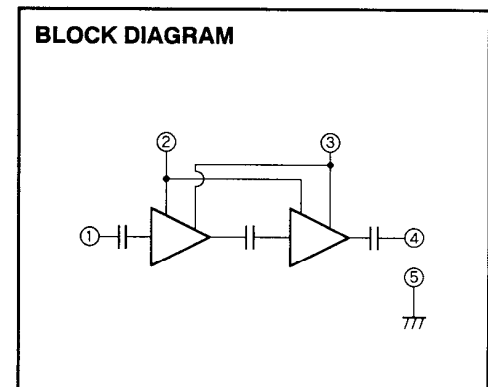
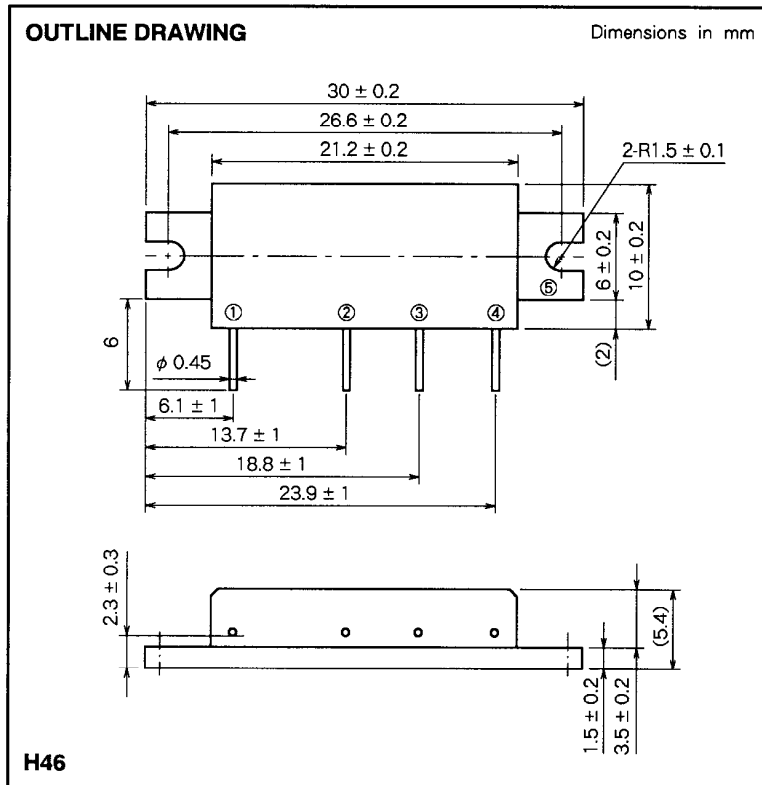


M68710L

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



- PIN :
- ① P_{in} : RF INPUT
 - ② V_{GG} : GATE BIAS SUPPLY
 - ③ V_{DD} : DRAIN BIAS SUPPLY
 - ④ P_o : RF OUTPUT
 - ⑤ GND : FIN

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

| Symbol | Parameter | Conditions | Ratings | Unit |
|--------------------|----------------------------|--|-------------|------|
| V _{DD} | Supply voltage | V _{GG} ≤ 3.5V, Z _G = Z _L = 50Ω | 9 | V |
| V _{GG} | Gate bias voltage | | 4 | V |
| P _{in} | Input power | f=400 to 430MHz, Z _G =Z _L =50Ω | 30 | mW |
| P _o | Output power | f=400 to 430MHz, V _{DD} ≤ 9V, Z _G =Z _L =50Ω | 3 | W |
| T _{C(OP)} | Operation case temperature | f=400 to 430MHz, V _{DD} ≤ 9V, Z _G =Z _L =50Ω | - 30 to 110 | °C |
| T _{stg} | Storage temperature | | - 40 to 110 | °C |

Note. Above parameters are guaranteed independently.

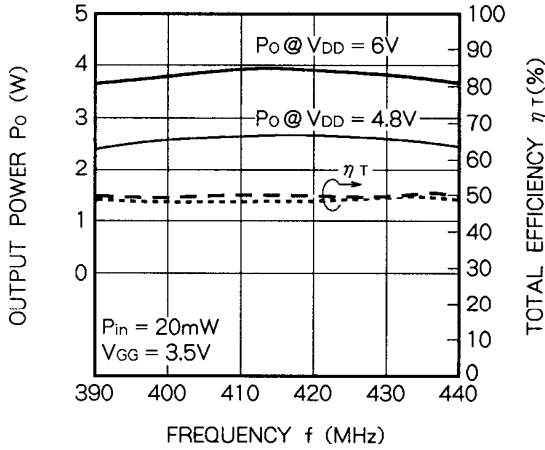
ELECTRICAL CHARACTERISTICS (T_c = 25 °C, Z_G = Z_L = 50Ω, unless otherwise noted)

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

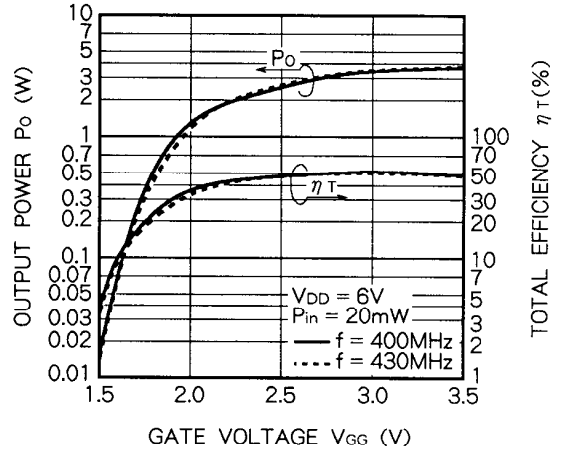
Note : Above parameters, ratings, limits and conditions are subject to change.

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

