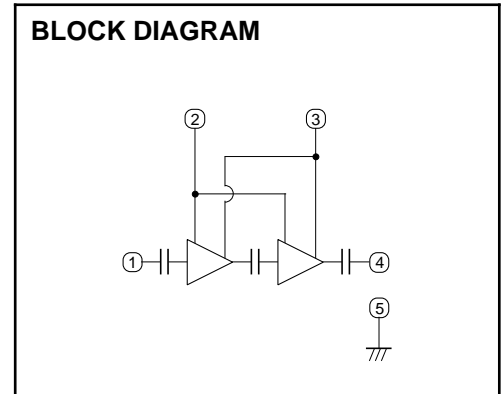
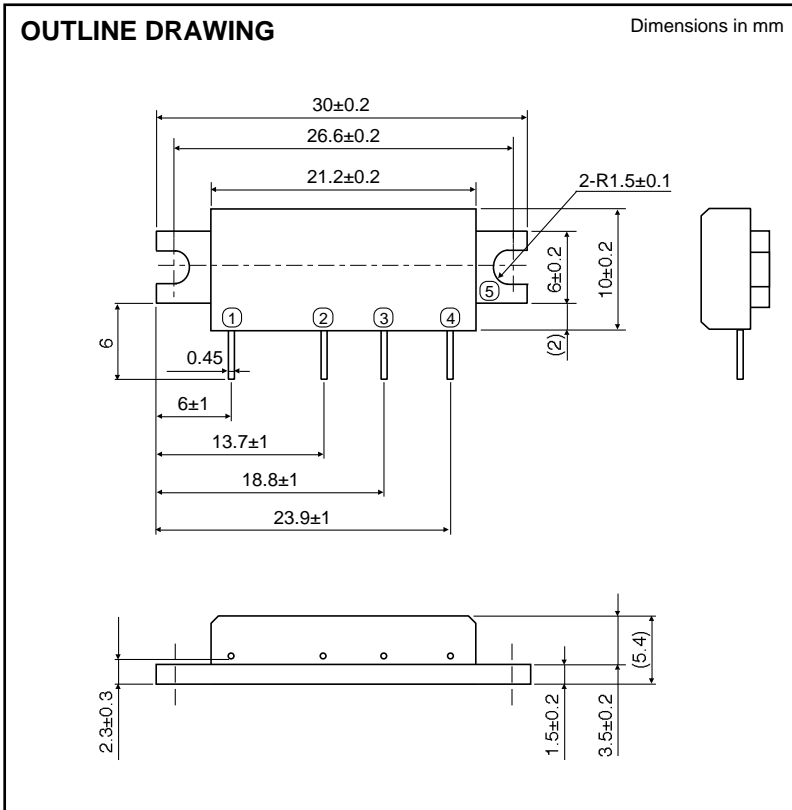


MITSUBISHI RF POWER MODULE
M68739M

SILICON MOS FET POWER AMPLIFIER, 155-168MHz, 7W, FM PORTABLE RADIO



- PIN:
 ① Pin : 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} 2.5V, Z _G =Z _L =50 | 16 | V |
| V _{GG} | Gate bias voltage | | 3 | V |
| P _{in} | Input power | f=155-168MHz, Z _G =Z _L =50 | 30 | mW |
| P _O | Output power | f=155-168MHz, Z _G =Z _L =50 | 10 | W |
| T _{C(OP)} | Operation case temperature | f=155-168MHz, Z _G =Z _L =50 | -30 to +100 | °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=50 unless otherwise noted)

| Symbol | Parameter | Test conditions | Limits | | Unit |
|-----------------|---------------------|--|---------------------------|-----|------|
| | | | Min | Max | |
| f | Frequency range | | 155 | 168 | MHz |
| P _O | Output power | | 7 | | W |
| η | Total efficiency | V _{DD} =9.6V, V _{GG} =2.5V, P _{in} =20mW | 50 | | % |
| 2f _o | 2nd. harmonic | | | -20 | dBc |
| in | Input VSWR | | | 4 | - |
| - | Stability | Z _G =50, V _{DD} =4.8-13.2V, Load VSWR <4:1 | No parasitic oscillation | | - |
| - | Load VSWR tolerance | V _{DD} =13.2V, P _{in} =20mW, P _O =7W (V _{GG} Adjust), Z _L =20:1 | No degradation or destroy | | - |

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