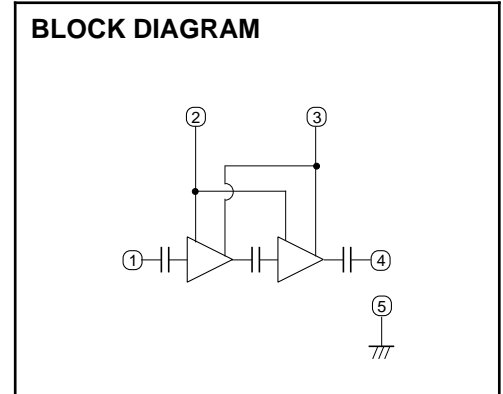
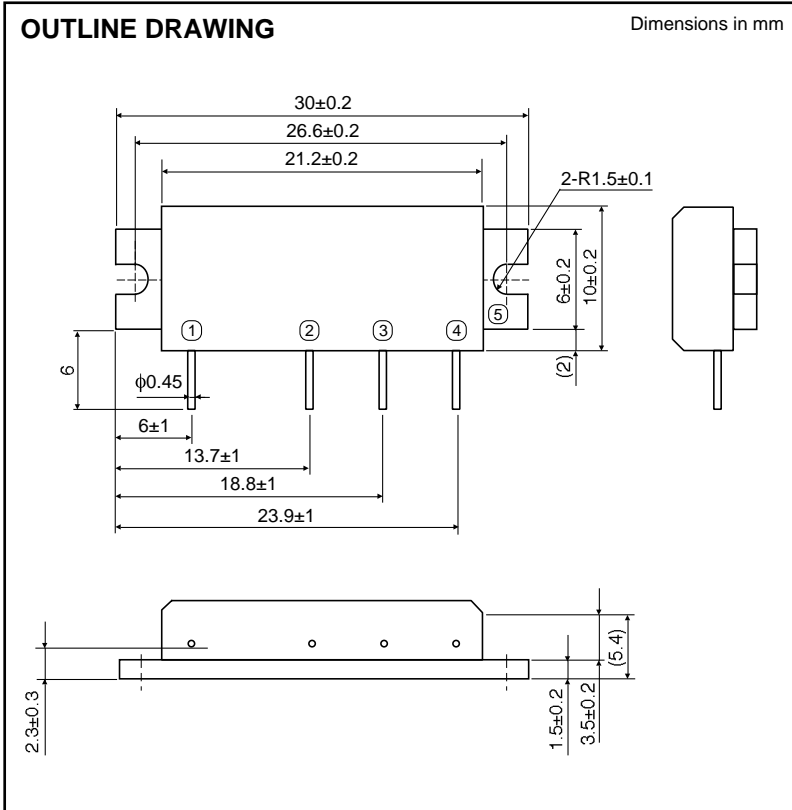


MITSUBISHI RF POWER MODULE
M68731N

SILICON MOS FET POWER AMPLIFIER, 142-163MHz, 7W, FM PORTABLE RADIO



- PIN:
 ① Pin : RF INPUT
 ② VGG : GATE BIAS SUPPLY
 ③ VDD : DRAIN BIAS SUPPLY
 ④ Po : RF OUTPUT
 ⑤ GND: FIN

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

| Symbol | Parameter | Conditions | Ratings | Unit |
|---------|----------------------------|------------------------|-------------|------|
| VDD | Supply voltage | VGG 3.5V, ZG=ZL=50 | 9.2 | V |
| VGG | Gate bias voltage | | 4 | V |
| Pin | Input power | f=142-163MHz, ZG=ZL=50 | 70 | mW |
| Po | Output power | f=142-163MHz, ZG=ZL=50 | 10 | W |
| Tc (OP) | Operation case temperature | f=142-163MHz, ZG=ZL=50 | -30 to +100 | °C |
| Tstg | Storage temperature | | -40 to +110 | °C |

Note. Above parameters are guaranteed independently.

ELECTRICAL CHARACTERISTICS (Tc=25°C, ZG=ZL=50 unless otherwise noted)

| Symbol | Parameter | Test conditions | Limits | | Unit |
|--------|---------------------|--|---------------------------|-----|------|
| | | | Min | Max | |
| f | Frequency range | | 142 | 163 | MHz |
| Po | Output power | VDD=7.2V, VGG=3.5V, Pin=50W | 7 | | W |
| η | Total efficiency | | 45 | | % |
| 2fo | 2nd. harmonic | | | -20 | dBc |
| in | Input VSWR | | | 4 | - |
| - | Stability | ZG=50, VDD=4-9.2V, Load VSWR<4:1 | No parasitic oscillation | | - |
| - | Load VSWR tolerance | VDD=9.2V, Pin=50mW, Po=7W (VGG adjust), ZL=20:1 | No degradation or destroy | | - |

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

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TYPICAL PERFORMANCE DATA

