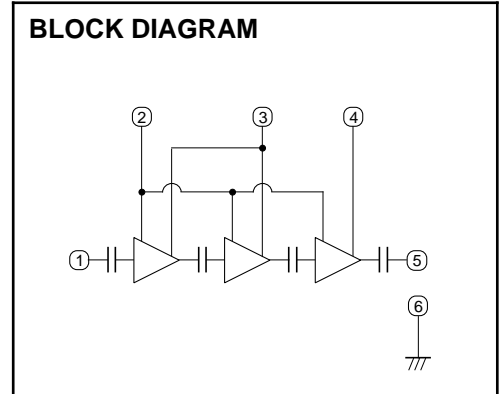
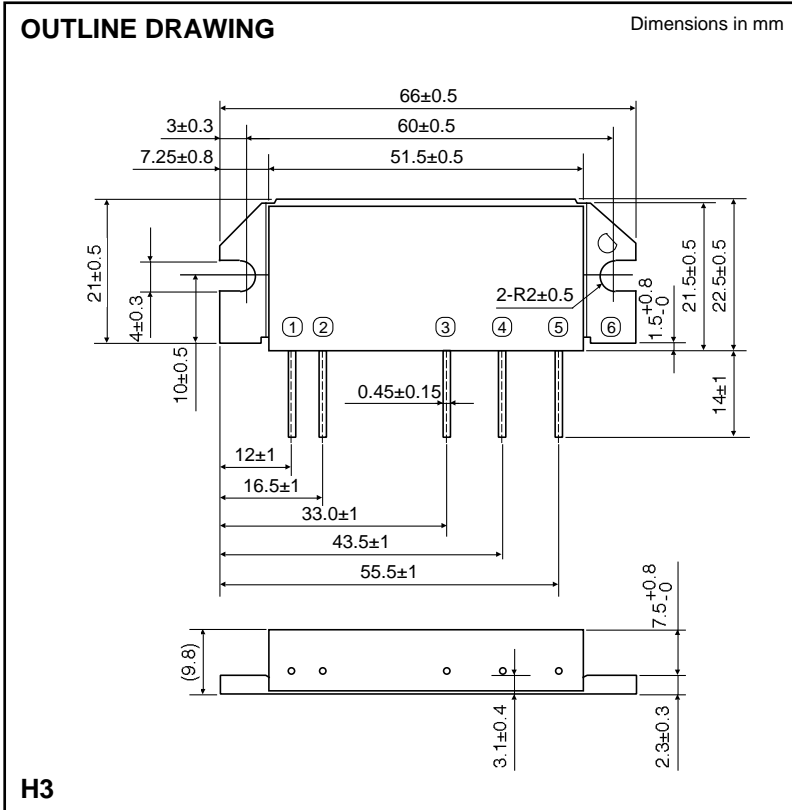


MITSUBISHI RF POWER MODULE
M57716L

360-380MHz, 12.5V, 13W, DIGITAL MOBILE RADIO



- PIN:
- ① Pin : RF INPUT
 - ② VBB : BASE BIAS SUPPLY
 - ③ VCC1: 1st. DC SUPPLY
 - ④ VCC2: 2nd. DC SUPPLY
 - ⑤ Po : RF OUTPUT
 - ⑥ GND: FIN

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

| Symbol | Parameter | Conditions | Ratings | Unit |
|-----------------------|----------------------------|---|-------------|------|
| V _{CC} | Supply voltage | Z _G =Z _L =50 , V _{BB} =9V | 17 | V |
| V _{BB} | Bias voltage | Z _G =Z _L =50 , V _{CC} 12.5V | 9.5 | V |
| I _{CC} | Total current | Z _G =Z _L =50 | 6 | A |
| P _{in (max)} | Input power | Z _G =Z _L =50 , V _{CC} 12.5V, V _{BB} =9V | 300 | mW |
| P _{O (max)} | Output power | Z _G =Z _L =50 , V _{CC} 12.5V, V _{BB} =9V | 20 | W |
| T _{C (OP)} | Operation case temperature | Z _G =Z _L =50 | -30 to +110 | °C |
| T _{stg} | Storage temperature | | -40 to +110 | °C |

Note. Above parameters are guaranteed independently.

ELECTRICAL CHARACTERISTICS (T_c=25°C unless otherwise noted)

| Symbol | Parameter | Test conditions | Limits | | Unit |
|-----------------|--------------------------|---|---------------------------|-----|--------|
| | | | Min | Max | |
| f | Frequency range | | 360 | 380 | MHz |
| P _O | Output power | P _{in} =200mW, V _{CC} =12.5V, V _{BB} =9V, Z _G =Z _L =50 | 13 | | W |
| η | Total efficiency | V _{CC} =12.5V, V _{BB} =9V, P _O =4W (P _{in} :controlled) Z _G =Z _L =50 | 15 | | % |
| 2f _o | 2nd. harmonic | P _{in} =200mW, V _{CC} =12.5, V _{BB} =9V, Z _G =Z _L =50 | | -30 | dBc |
| 3f _o | 3rd. harmonic | | | -30 | dBc |
| S _{in} | Input VSWR | | | 2.5 | - |
| G _p | Power gain | P _{in} =10dBm, V _{CC} =12.5V, V _{BB} =9V, Z _G =Z _L =50 | 27 | | dB |
| IMD3 | 3rd. internal modulation | V _{CC} =12.5V, V _{BB} =9V, P _O (AVE)=4W, (P _{in} :controlled) 2tone, f=2kHz, Z _G =Z _L =50 | | -25 | dBc |
| - | Load VSWR tolerance | V _{CC} =14.4V, V _{BB} =9V, P _O =10W (P _{in} :controlled) Z _G =50 , Load VSWR=8:1 (All phase) | No degradation or destory | | - |
| - | Stability | P _{in} =0-300mW, V _{CC} =10.8-13.2V, V _{BB} =9V, P _O 20W 3.0 (All phase), Z _G =50 | No parastic oscillation | | Note 1 |

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

Note 1. Stability is tested by sampling test (10pcs/Lot)

TYPICAL PERFORMANCE DATA

