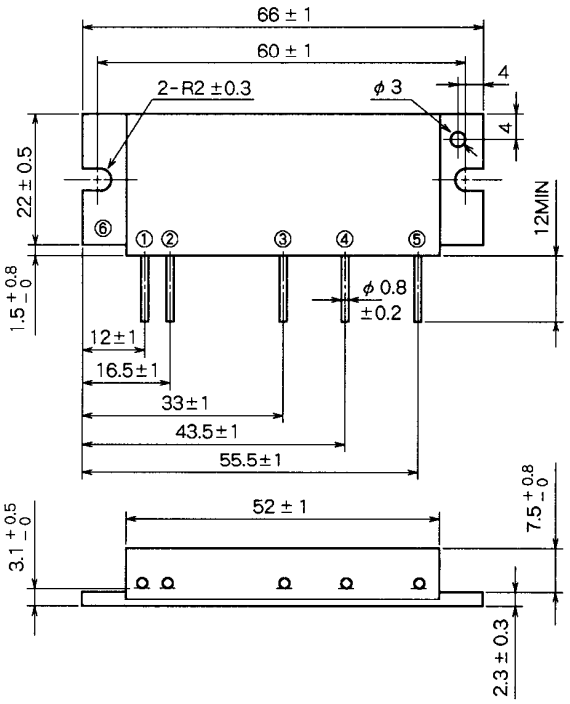
MITSUBISHI RF POWER MODULE

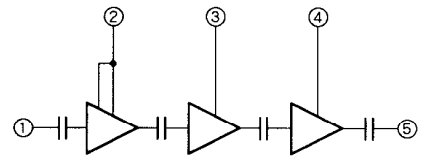
# M57729L

**400-420MHz, 12.5V, 30W, FM MOBILE RADIO**

**OUTLINE DRAWING** Dimensions in mm




**BLOCK DIAGRAM**



PIN :
①Pin : RF INPUT
②Vcc1 : 1st. DC SUPPLY
③Vcc2 : 2nd. DC SUPPLY
④Vcc3 : 3rd. DC SUPPLY
⑤Po : RF OUTPUT
⑥GND : FIN

**ABSOLUTE MAXIMUM RATINGS** (Tc = 25℃ unless otherwise noted)

| Symbol | Parameter | Conditions | Ratings | Unit |
|---|---|---|---|---|
| Vcc | Supply voltage | | 17 | V |
| Icc | Total current | | 10 | A |
| Pin(max) | Input power | ZG = ZL = 50 Ω | 0.4 | W |
| Po(max) | Output power | ZG = ZL = 50 Ω | 40 | W |
| Tc(OP) | Operation case temperature | | − 30 to 110 | ℃ |
| Tstg | Storage temperature | | − 40 to 110 | ℃ |

Note. Above parameters are guaranteed independently.

**ELECTRICAL CHARACTERISTICS** (Tc = 25℃ unless otherwise noted)

| Symbol | Parameter | Test conditions | Limits | | Unit |
|---|---|---|---|---|---|
| | | | Min | Max | |
| f | Frequency range | Pin = 0.3W<br>Vcc = 12.5V<br>ZG = ZL = 50 Ω | 400 | 420 | MHz |
| Po | Output power | | 30 | | W |
| ηT | Total efficiency | | 40 | | % |
| 2fo | 2nd. harmonic | | | − 30 | dBc |
| 3fo | 3rd. harmonic | | | − 30 | dBc |
| ρin | Input VSWR | | | 2.8 | − |
| − | Load VSWR tolerance | Vcc = 15.2V,<br>Po = 30W (Pin : controlled)<br>Load VSWR=20:1(All phase), 2sec.<br>ZG = 50 Ω | No degradation or destroy | | − |

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