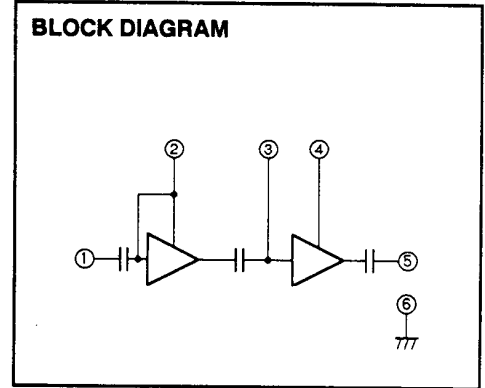
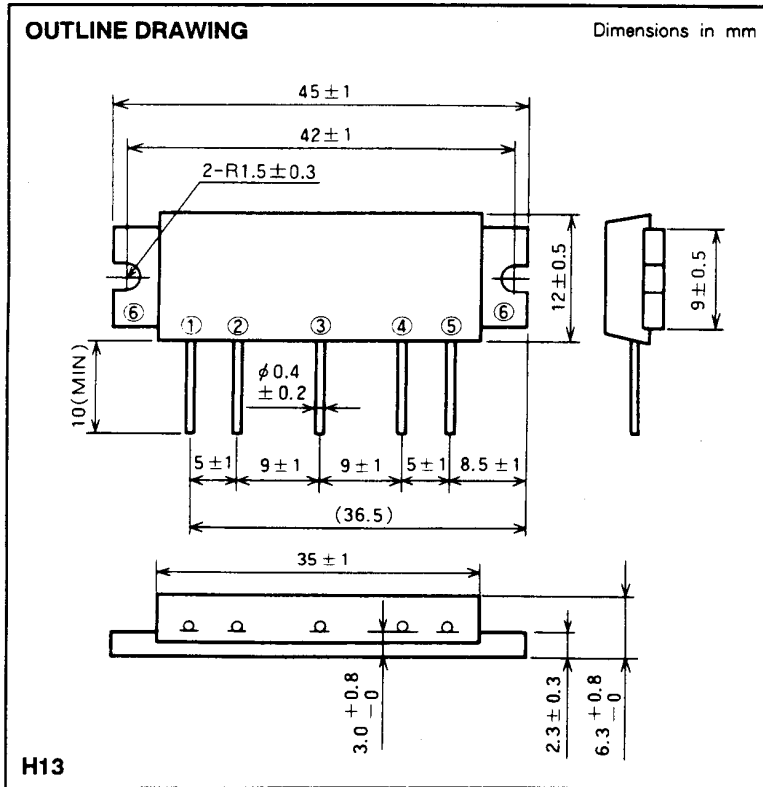


# M67743H

77-88MHz, 12.5V, 7W, FM PORTABLE RADIO



- PIN :
- ① Pin : RF INPUT
  - ② Vcc1 : 1st. DC SUPPLY
  - ③ VBB : BASE BIAS SUPPLY
  - ④ Vcc2 : 2nd. DC SUPPLY
  - ⑤ Po : RF OUTPUT
  - ⑥ GND : FIN

**ABSOLUTE MAXIMUM RATINGS** (T<sub>c</sub> = 25 °C unless otherwise noted)

| Symbol               | Parameter                  | Conditions                             | Ratings     | Unit |
|----------------------|----------------------------|--|-------------|------|
| V <sub>cc</sub>      | Supply voltage             |  | 15          | V    |
| V <sub>BB</sub>      | Base bias                  |  | 5.5         | V    |
| I <sub>cc</sub>      | Total current              |  | 4           | A    |
| P <sub>in(max)</sub> | Input power                | Z <sub>G</sub> = Z <sub>L</sub> = 50 Ω | 40          | mW   |
| P <sub>o(max)</sub>  | Output power               | Z <sub>G</sub> = Z <sub>L</sub> = 50 Ω | 10          | W    |
| T <sub>c(OP)</sub>   | Operation case temperature |  | - 30 to 110 | °C   |
| T <sub>stg</sub>     | Storage temperature        |  | - 40 to 110 | °C   |

Note. Above parameters are guaranteed independently.

**ELECTRICAL CHARACTERISTICS** (T<sub>c</sub> = 25 °C unless otherwise noted)

| Symbol          | Parameter           | Test conditions   | Limits                    |      | Unit |
|-----------------|---------------------|---|---------------------------|------|------|
|                 |                     |   | Min                       | Max  |      |
| f               | Frequency range     |   | 77                        | 88   | MHz  |
| P <sub>o</sub>  | Output power        | P <sub>in</sub> = 30mW  | 7                         |      | W    |
| η <sub>T</sub>  | Total efficiency    | V <sub>BB</sub> = 5V  | 38                        |      | %    |
| 2f <sub>o</sub> | 2nd. harmonic       | V <sub>cc</sub> = 12.5V   |                           | - 18 | dBc  |
| 3f <sub>o</sub> | 3rd. harmonic       | Z <sub>G</sub> = Z <sub>L</sub> = 50 Ω  |                           | - 25 | dBc  |
| ρ <sub>in</sub> | Input VSWR          |   |                           | 4.0  | -    |
| -               | Load VSWR tolerance | V <sub>cc</sub> = 13.2V, V <sub>BB</sub> = 5V<br>P <sub>o</sub> = 7W (P <sub>in</sub> : controlled)<br>Load VSWR=20:1 (All phase), 2sec.<br>Z <sub>G</sub> = 50 Ω | No degradation or destroy |      | -    |

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