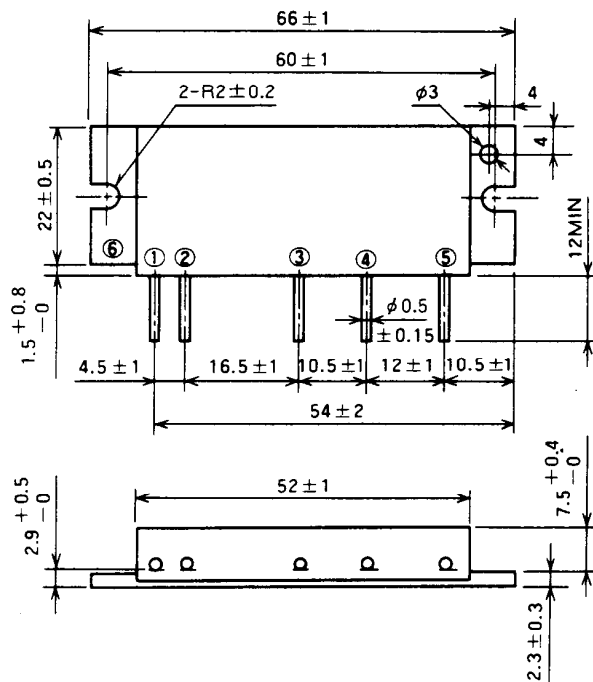


# M57704EL

335-360MHz, 12.5V, 13W, FM MOBILE RADIO

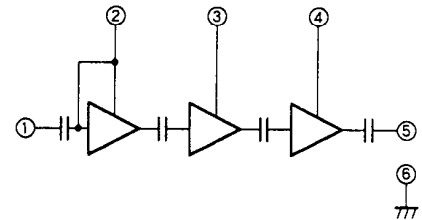
## OUTLINE DRAWING

Dimensions in mm



H3

## BLOCK DIAGRAM



PIN :

- ①  $P_{in}$  : RF INPUT
- ②  $V_{CC1}$  : 1st. DC SUPPLY
- ③  $V_{CC2}$  : 2nd. DC SUPPLY
- ④  $V_{CC3}$  : 3rd. DC SUPPLY
- ⑤  $P_o$  : RF OUTPUT
- ⑥ GND : FIN

## ABSOLUTE MAXIMUM RATINGS ( $T_c = 25^\circ\text{C}$ unless otherwise noted)

| Symbol        | Parameter                  | Conditions              | Ratings     | Unit             |
|---------------|----------------------------|-------------------------|-------------|------------------|
| $V_{CC}$      | Supply voltage             |                         | 17          | V                |
| $I_{CC}$      | Total current              |                         | 5           | A                |
| $P_{in(max)}$ | Input power                | $Z_G = Z_L = 50 \Omega$ | 0.4         | W                |
| $P_{o(max)}$  | Output power               | $Z_G = Z_L = 50 \Omega$ | 20          | W                |
| $T_{C(OP)}$   | Operation case temperature |                         | - 30 to 110 | $^\circ\text{C}$ |
| $T_{stg}$     | Storage temperature        |                         | - 40 to 110 | $^\circ\text{C}$ |

Note. Above parameters are guaranteed independently.

## ELECTRICAL CHARACTERISTICS ( $T_c = 25^\circ\text{C}$ unless otherwise noted)

| Symbol      | Parameter           | Test conditions                                                                                                                    | Limits                    |      | Unit |
|-------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------|------|
|             |                     |                                                                                                                                    | Min                       | Max  |      |
| $f$         | Frequency range     | $P_{in} = 0.2\text{W}$<br>$V_{CC} = 12.5\text{V}$<br>$Z_G = Z_L = 50 \Omega$                                                       | 335                       | 360  | MHz  |
| $P_o$       | Output power        |                                                                                                                                    | 13                        |      | W    |
| $\eta_T$    | Total efficiency    |                                                                                                                                    | 35                        |      | %    |
| $2f_o$      | 2nd. harmonic       |                                                                                                                                    |                           | - 30 | dBc  |
| $\rho_{in}$ | Input VSWR          |                                                                                                                                    |                           | 2.8  | -    |
| -           | Load VSWR tolerance | $V_{CC} = 15.2\text{V}$ ,<br>$P_o = 14\text{W}$ ( $P_{in}$ : controlled)<br>Load VSWR=20:1 (All phase), 2sec.<br>$Z_G = 50 \Omega$ | No degradation or destroy |      | -    |

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