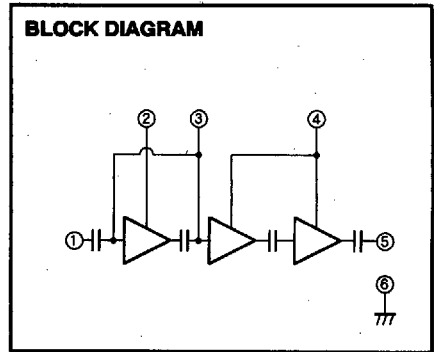
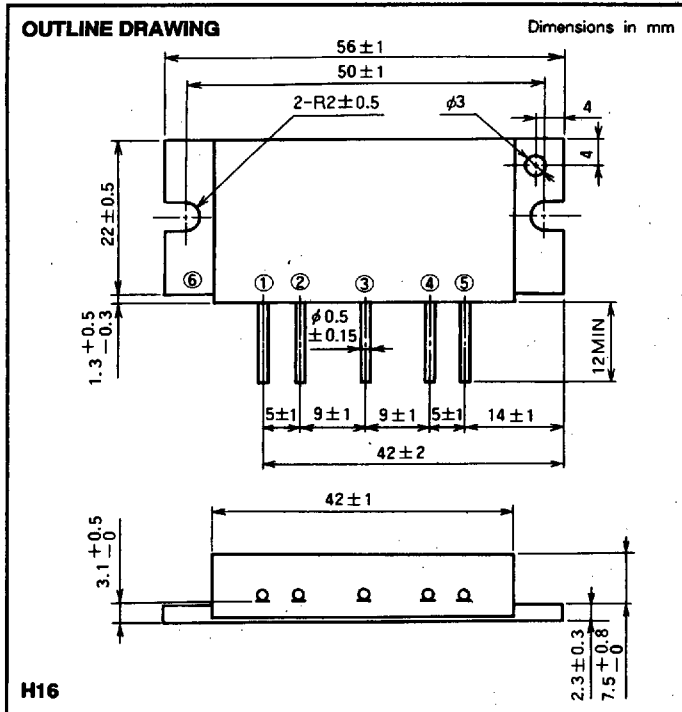


M67704

142-175MHz, 12.5V, 13W, FM MOBILE 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 (Tc = 25°C unless otherwise noted)

| Symbol | Parameter | Conditions | Ratings | Unit |
|----------------------|----------------------------|--|-------------|------|
| Vcc | Supply voltage | | 16 | V |
| VBB | Base bias | | 6 | V |
| Icc | Total current | | 4 | A |
| P _{in(max)} | Input power | Z _G = Z _L = 50 Ω | 40 | mW |
| P _{O(max)} | Output power | Z _G = Z _L = 50 Ω | 20 | W |
| T _{C(OP)} | Operation case temperature | | - 30 to 110 | °C |
| T _{stg} | Storage temperature | | - 40 to 110 | °C |

Note. Above parameters are guaranteed independently.

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

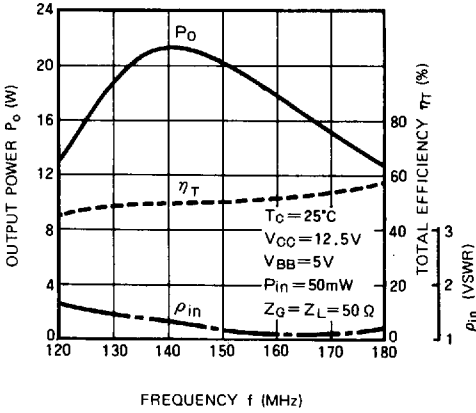
| Symbol | Parameter | Test conditions | Limits | | Unit |
|-----------------|---------------------|---|---------------------------|------|------|
| | | | Min | Max | |
| f | Frequency range | P _{in} = 20mW V _{BB} = 5V V _{cc} = 12.5V Z _G = Z _L = 50 Ω | 142 | 175 | MHz |
| P _o | Output power | | 13 | | W |
| η _T | Total efficiency | | 40 | | % |
| 2f _o | 2nd. harmonic | | | - 20 | dBc |
| 3f _o | 3rd. harmonic | | | - 30 | dBc |
| ρ _{in} | Input VSWR | | | 2.5 | - |
| - | Load VSWR tolerance | V _{cc} = 15.2V, V _{BB} = 5V P _o = 13W (P _{in} : controlled) Load VSWR=20:1 (All phase), 2sec. Z _G = 50Ω | No degradation or destroy | | - |

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

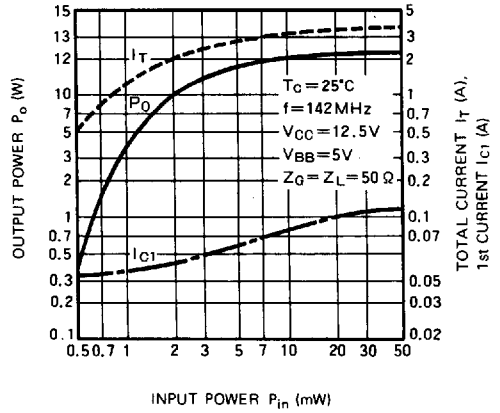


TYPICAL PERFORMANCE DATA

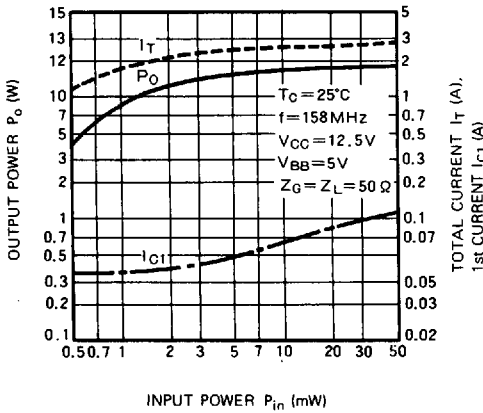
OUTPUT POWER, TOTAL EFFICIENCY, ρ_{in} VS. FREQUENCY CHARACTERISTICS



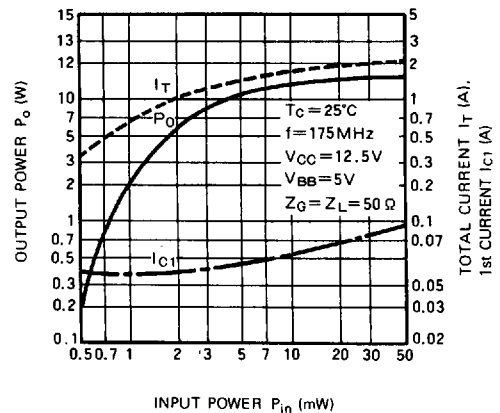
OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS. INPUT POWER CHARACTERISTICS



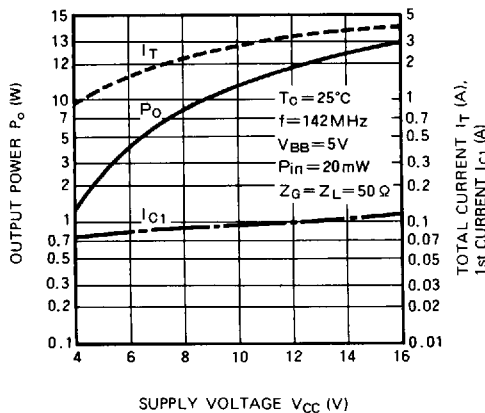
OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS. INPUT POWER CHARACTERISTICS



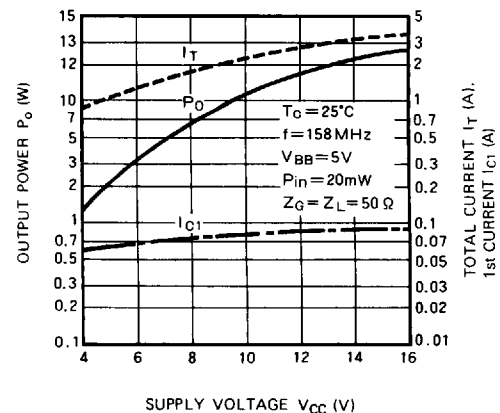
OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS. INPUT POWER CHARACTERISTICS



OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS

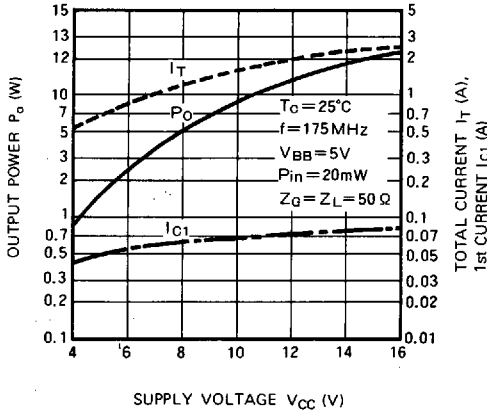


OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS

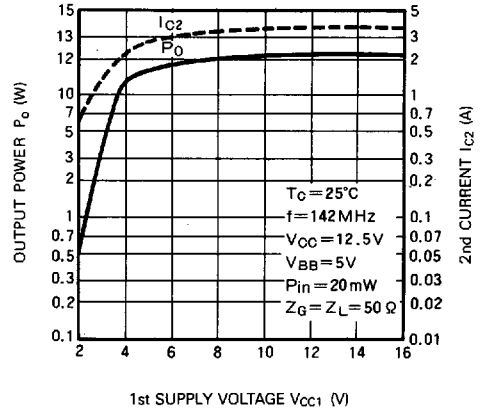


142-175MHz, 12.5V, 13W, FM MOBILE RADIO

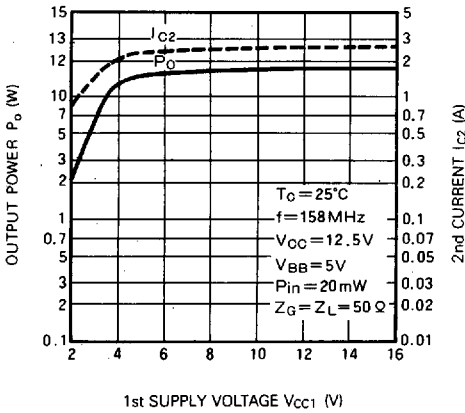
OUTPUT POWER, TOTAL CURRENT, 1st CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS



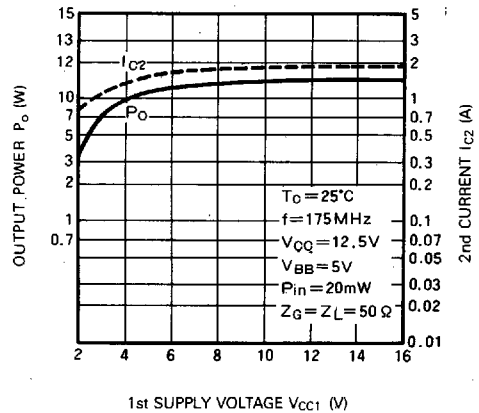
OUTPUT POWER, 2nd CURRENT, VS. 1st SUPPLY VOLTAGE CHARACTERISTICS



OUTPUT POWER, 2nd CURRENT, VS. 1st SUPPLY VOLTAGE CHARACTERISTICS



OUTPUT POWER, 2nd CURRENT, VS. 1st SUPPLY VOLTAGE CHARACTERISTICS



2nd, 3rd HARMONIC VS. FREQUENCY CHARACTERISTICS

