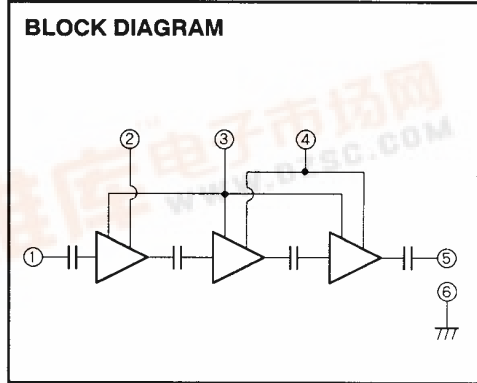
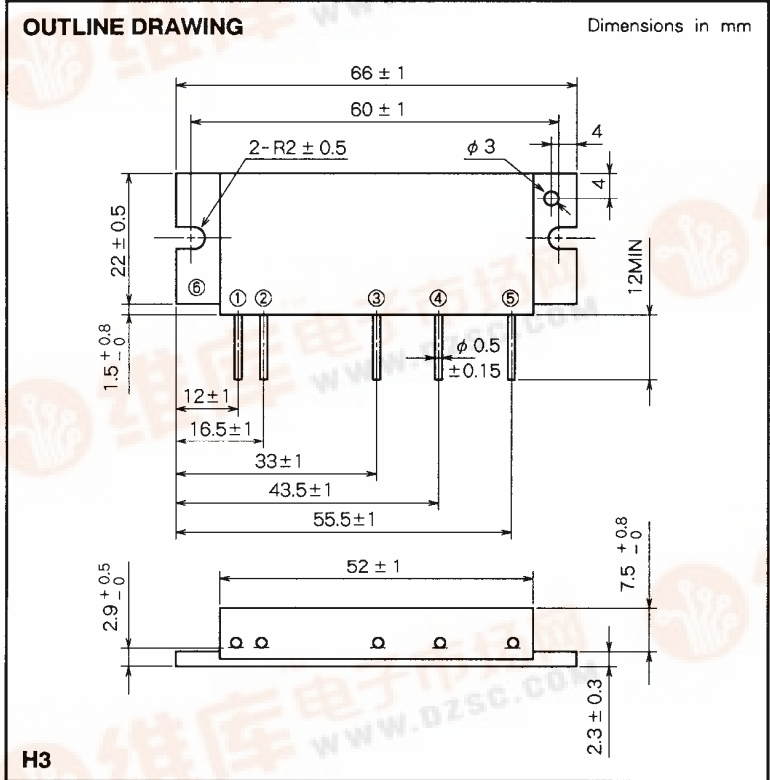


MITSUBISHI RF POWER MODULE

M57762

1240-1300MHZ, 12.5V, 18W, SSB MOBILE RADIO



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

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

| Symbol | Parameter | Conditions | Ratings | Unit |
|----------|----------------------------|-------------------------------|-------------|------|
| Vcc | Supply voltage | | 17 | V |
| VBB | Base bias | | 10 | V |
| Icc | Total current | | 8 | A |
| Pin(max) | Input power | Vcc1=12.5V, VBB=9V, ZG=ZL=50Ω | 2 | W |
| PO(max) | Output power | ZG = ZL = 50 Ω | 25 | W |
| Tc(OP) | Operation case temperature | | - 30 to 110 | °C |
| Tstg | Storage temperature | | - 40 to 110 | °C |

Note. Above parameters are guaranteed independently.

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

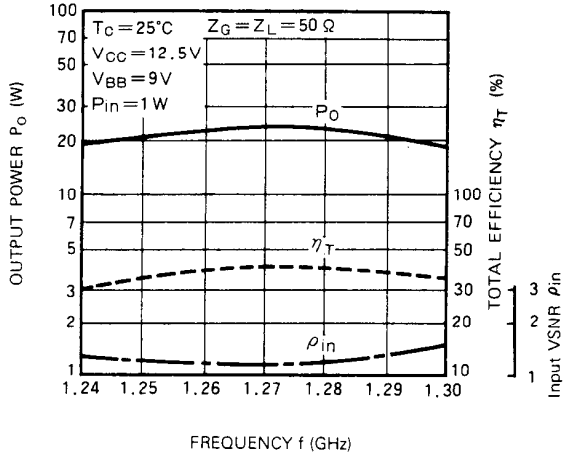
| Symbol | Parameter | Test conditions | Limits | | Unit |
|--------|---------------------------------|--|---------------------------|------|------|
| | | | Min | Max | |
| f | Frequency range | | 1240 | 1300 | MHz |
| PO | Output power | Vcc1 = Vcc2 = 12.5V | 18 | | W |
| η T | Total efficiency | VBB = 9V | 28 | | % |
| 2fo | 2nd. harmonic | Pin = 1W | | - 45 | dBc |
| ρ in | Input VSWR | ZG = ZL = 50 Ω | | 2.0 | - |
| Ibb | Base bias current | | | 500 | mA |
| GP | Linear power gain | Vcc1 = Vcc2 = 12.5V, VBB = 9V, Pin = 10dBm, ZG = ZL = 50Ω | 13 | | dB |
| IMD3 | 3rd. intermodulation distortion | Vcc1=Vcc2=12.5V, VBB=9V, Δf=10kHz, | | - 24 | dBc |
| IMD5 | 5th. intermodulation distortion | PO(PEP) ≤ 14W, ZG=ZL=50Ω | | - 31 | dBc |
| - | Load VSWR tolerance | Vcc1 = Vcc2 = 15.2V, VBB = 9V, PO = 18W(Pin : controlled), ZG=50Ω Load VSWR = 16 : 1(All phase). | No degradation or destroy | | - |

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

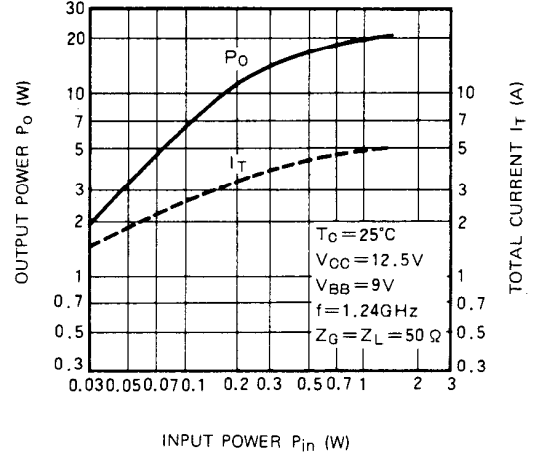


TYPICAL PERFORMANCE DATA

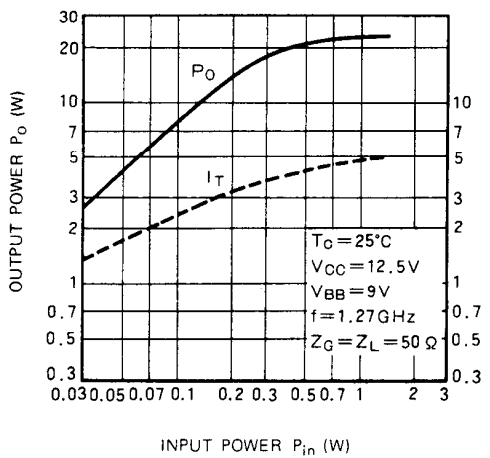
OUTPUT POWER, TOTAL EFFICIENCY, INPUT VSWR VS. FREQUENCY CHARACTERISTICS



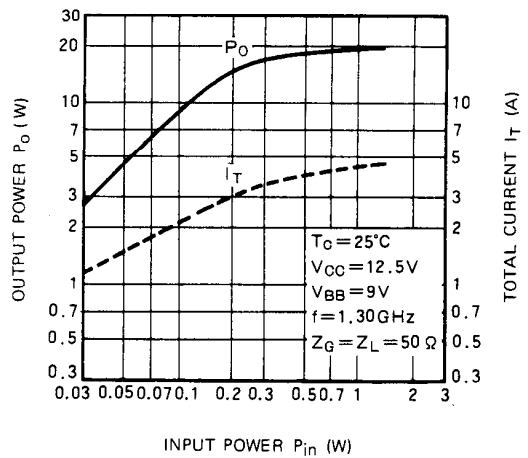
OUTPUT POWER, TOTAL CURRENT, VS. INPUT POWER CHARACTERISTICS



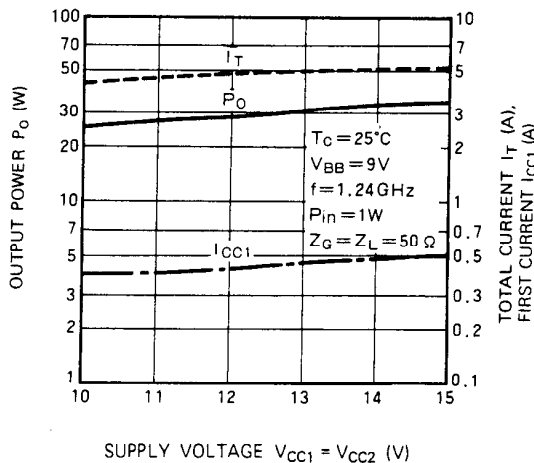
OUTPUT POWER, TOTAL CURRENT, VS. INPUT POWER CHARACTERISTICS



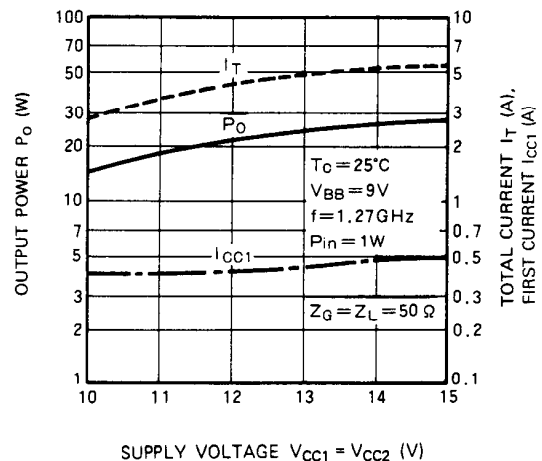
OUTPUT POWER, TOTAL CURRENT, VS. INPUT POWER CHARACTERISTICS



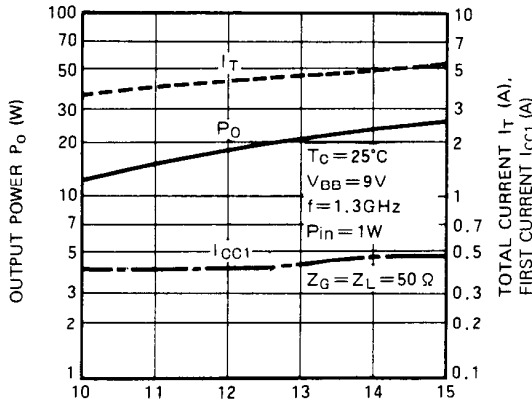
OUTPUT POWER, TOTAL CURRENT, FIRST CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS



OUTPUT POWER, TOTAL CURRENT, FIRST CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS

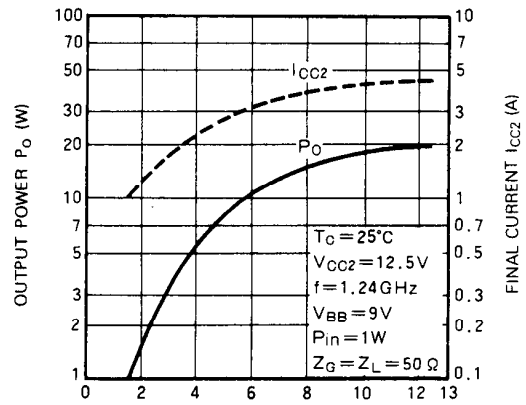


OUTPUT POWER, TOTAL CURRENT, FIRST CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS



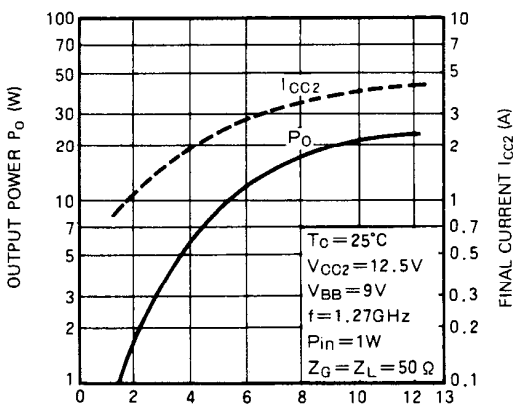
SUPPLY VOLTAGE $V_{CC1} = V_{CC2}$ (V)

OUTPUT POWER, FINAL CURRENT VS. FIRST VOLTAGE CHARACTERISTICS



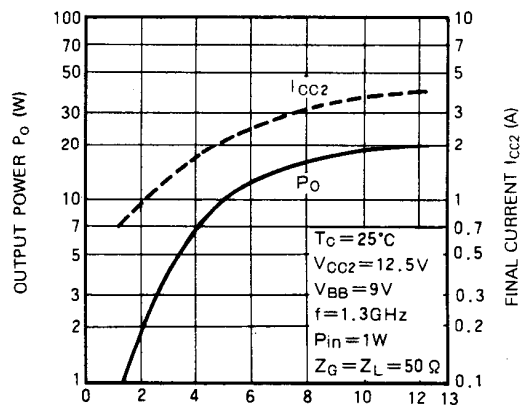
FIRST VOLTAGE V_{CC1} (V)

OUTPUT POWER, FINAL CURRENT VS. FIRST VOLTAGE CHARACTERISTICS



FIRST VOLTAGE V_{CC1} (V)

OUTPUT POWER, FINAL CURRENT VS. FIRST CURRENT CHARACTERISTICS



FIRST VOLTAGE V_{CC1} (V)