

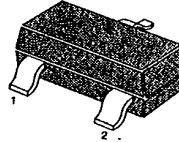
MMBC1009F2 NPN EPITAXIAL SILICON TRANSISTOR

T-31-19

AM/FM RF AMPLIFIER TRANSISTOR**ABSOLUTE MAXIMUM RATINGS (T_a = 25°C)**

| Characteristic | Symbol | Rating | Unit |
|---------------------------|------------------|--------|------|
| Collector-Base Voltage | V _{CB0} | 50 | V |
| Collector-Emitter Voltage | V _{CE0} | 25 | V |
| Emitter-Base Voltage | V _{EB0} | 5 | V |
| Collector Current | I _C | 50 | mA |
| Collector Dissipation | P _C | 350 | mW |
| Storage Temperature | T _{stg} | 150 | °C |

SOT-23



1. Base 2. Emitter 3. Collector

ELECTRICAL CHARACTERISTICS (T_a = 25°C)

| Characteristic | Symbol | Test Condition | Min | Typ | Max | Unit |
|--------------------------------------|----------------------|---|-----|-----|-----|------|
| Collector Cutoff Current | I _{CB0} | V _{CB} = 15V, I _E = 0 | | | 100 | nA |
| DC Current Gain | h _{FE} | V _{CE} = 3V, I _C = 0.5mA | 40 | | 80 | |
| Collector-Emitter Saturation Voltage | V _{CE(sat)} | I _C = 10mA, I _B = 1.0mA | | | 0.3 | V |
| Current Gain-Bandwidth Product | f _T | I _C = 1mA, V _{CE} = 6V f = 100MHz | 150 | | | MHz |
| Output Capacitance | C _{ob} | V _{CB} = 6V, I _E = 0 f = 1MHz | | 2 | | pF |
| Noise Figure | NF | I _C = 0.5mA, V _{CE} = 6V f = 1MHz, R _g = 500Ω | | 2.5 | | dB |

Marking

