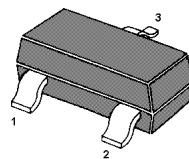


MMBTSC2787

NPN Silicon Epitaxial Planar Transistor

for FM RF amp, mixer, osc, converter and IF amplifier.

The transistor is subdivided into three groups M, L, and K according to its DC current gain.



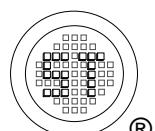
1. Base 2. Emitter 3. Collector
TO-236 Plastic Package

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

| Parameter | Symbol | Value | Unit |
|---------------------------|-----------|---------------|------------------|
| Collector Base Voltage | V_{CBO} | 50 | V |
| Collector Emitter Voltage | V_{CEO} | 30 | V |
| Emitter Base Voltage | V_{EBO} | 5 | V |
| Collector Current | I_C | 30 | mA |
| Power Dissipation | P_{tot} | 200 | mW |
| Junction Temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{stg} | - 55 to + 150 | $^\circ\text{C}$ |

Characteristics at $T_{amb}=25^\circ\text{C}$

| Parameter | Symbol | Min. | Typ. | Max. | Unit |
|---|---------------|------|------|------|------|
| DC Current Gain at $V_{CE} = 6 \text{ V}$, $I_C = 1 \text{ mA}$ | h_{FE} | 40 | - | 80 | - |
| Current Gain Group M | h_{FE} | 60 | - | 120 | - |
| L | h_{FE} | 90 | - | 300 | - |
| K | | | | | |
| Collector Base Cutoff Current at $V_{CB} = 50 \text{ V}$ | I_{CBO} | - | - | 100 | nA |
| Emitter Base Cutoff Current at $V_{EB} = 5 \text{ V}$ | I_{EBO} | - | - | 100 | nA |
| Collector Emitter Saturation Voltage at $I_C = 10 \text{ mA}$, $I_B = 1 \text{ mA}$ | $V_{CE(sat)}$ | - | - | 0.3 | V |
| Base Emitter Voltage at $V_{CE} = 6 \text{ V}$, $I_C = 1 \text{ mA}$ | V_{BE} | 0.65 | - | 0.75 | V |
| Gain Bandwidth Product at $V_{CE} = 6 \text{ V}$, $I_E = -1 \text{ mA}$ | f_T | - | 250 | - | MHz |
| Output Capacitance at $V_{CB} = 6 \text{ V}$, $f = 1 \text{ MHz}$ | C_{ob} | - | - | 2.2 | pF |



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