

MMBT6429**NPN EPITAXIAL SILICON TRANSISTOR**

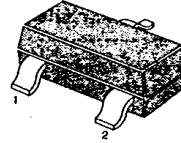
T-29-19

AMPLIFIER TRANSISTOR**ABSOLUTE MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)**

| Characteristic | Symbol | Rating | Unit |
|---------------------------|-----------|--------|------------------|
| Collector-Base Voltage | V_{CB0} | 55 | V |
| Collector-Emitter Voltage | V_{CE0} | 45 | V |
| Emitter-Base Voltage | V_{EB0} | 6 | V |
| Collector Current | I_C | 200 | mA |
| Collector Dissipation | P_C | 350 | mW |
| Storage Temperature | T_{stg} | 150 | $^\circ\text{C}$ |

• Refer to MMBT5088 for graphs

SOT-23



1. Base 2. Emitter 3. Collector

ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

| Characteristic | Symbol | Test Condition | Min | Max | Unit |
|--------------------------------------|---------------|---|------|------|---------------|
| Collector-Base Breakdown Voltage | BV_{CBO} | $I_C = 0.1\text{mA}, I_E = 0$ | 55 | | V |
| Collector-Emitter Breakdown Voltage | BV_{CEO} | $I_C = 1.0\text{mA}, I_B = 0$ | 45 | | V |
| Collector Cutoff Current | I_{CBO} | $V_{CB} = 30\text{V}, I_E = 0$ | | 0.01 | μA |
| Collector Cutoff Current | I_{CEO} | $V_{CE} = 30\text{V}, I_B = 0$ | | 0.1 | μA |
| Emitter Cutoff Current | I_{EBO} | $V_{EB} = 5.0\text{V}, I_C = 0$ | | 0.01 | μA |
| DC Current Gain | h_{FE} | $V_{CE} = 5\text{V}, I_C = 0.01\text{mA}$ | 500 | | |
| | | $V_{CE} = 5\text{V}, I_C = 0.1\text{mA}$ | 500 | 1250 | |
| | | $V_{CE} = 5\text{V}, I_C = 1.0\text{mA}$ | 500 | | |
| | | $V_{CE} = 5\text{V}, I_C = 10\text{mA}$ | 500 | | |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C = 10\text{mA}, I_B = 0.5\text{mA}$ | | 0.2 | V |
| | | $I_C = 100\text{mA}, I_B = 5\text{mA}$ | | 0.6 | V |
| Base-Emitter On Voltage | $V_{BE(on)}$ | $I_C = 1\text{mA}, V_{CE} = 5\text{V}$ | 0.56 | 0.66 | V |
| Current Gain-Bandwidth Product | f_T | $I_C = 1.0\text{mA}, V_{CE} = 5\text{V}$ $f = 100\text{MHz}$ | 100 | 700 | MHz |
| Output Capacitance | C_{ob} | $V_{CB} = 10\text{V}, I_E = 0$ $f = 1.0\text{MHz}$ | | 3 | pF |

Marking

