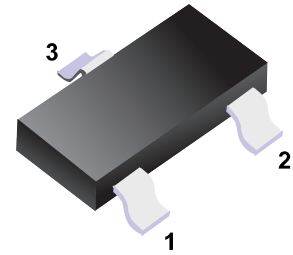


**NPN Transistor**
**Features**

- ◆ Low equivalent on-resistance

**Marking**

| Marking Code |     |
|--------------|-----|
| FMMT491      | 491 |

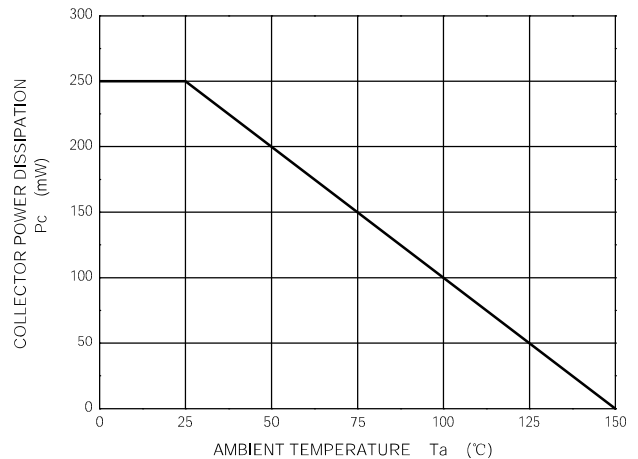
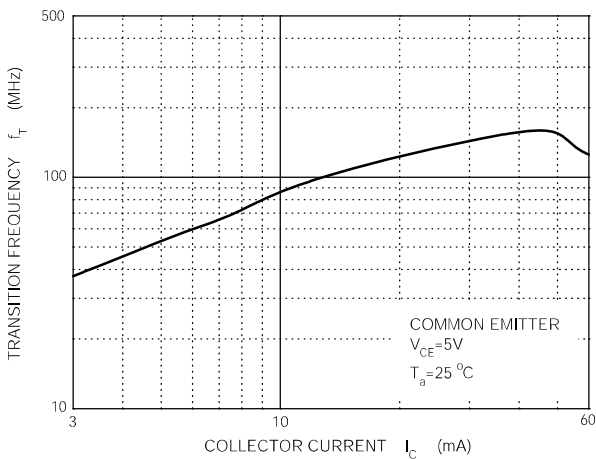
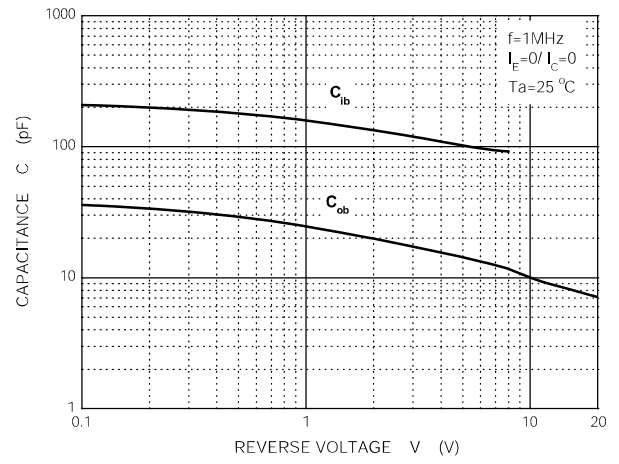
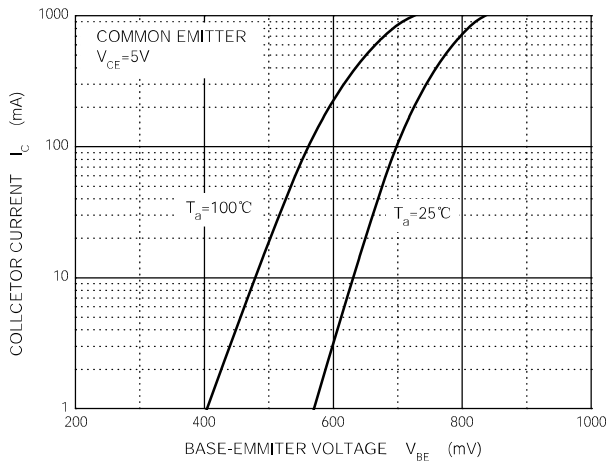
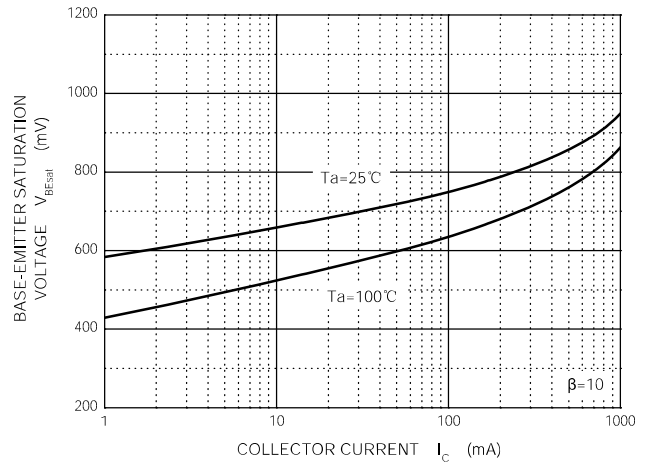
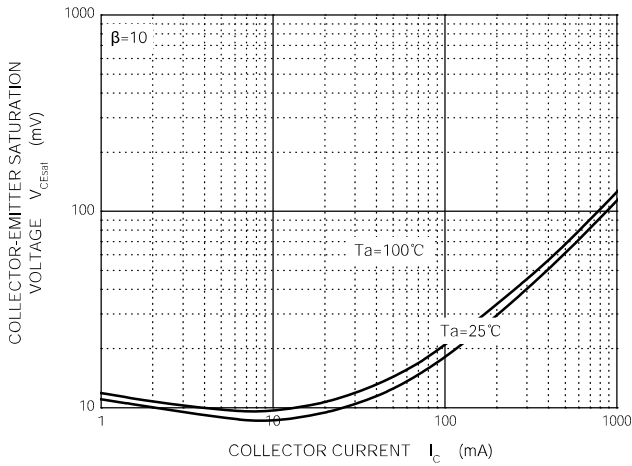
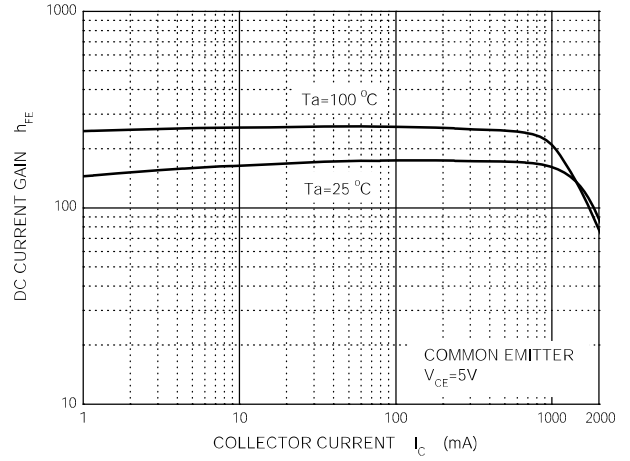
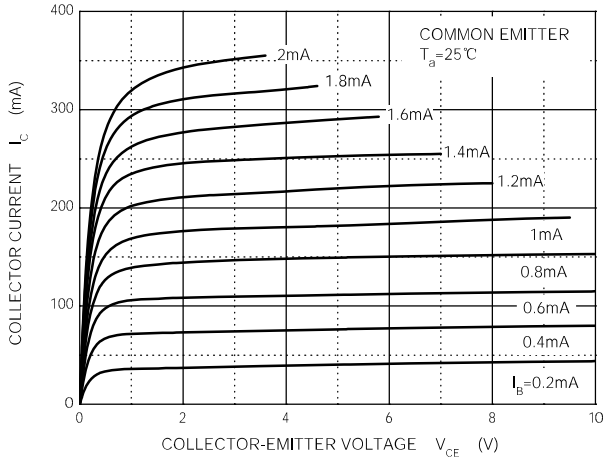

**■ Simplified outline(SOT-23)**
**MAXIMUM RATINGS (T<sub>a</sub>=25°C unless otherwise noted)**

| Symbol                            | Parameter  | Value    | Unit |
|-----------------------------------|--|----------|------|
| V <sub>CB0</sub>                  | Collector-Base Voltage                           | 80       | V    |
| V <sub>CEO</sub>                  | Collector-Emitter Voltage                        | 60       | V    |
| V <sub>EBO</sub>                  | Emitter-Base Voltage                             | 5        | V    |
| I <sub>C</sub>                    | Collector Current                                | 1        | A    |
| I <sub>CM</sub>                   | Peak Pulse Current                               | 2        | A    |
| P <sub>C</sub>                    | Collector Power Dissipation                      | 250      | mW   |
| R <sub>θJA</sub>                  | Thermal Resistance From Junction To Ambient      | 500      | °C/W |
| T <sub>J</sub> , T <sub>stg</sub> | Operation Junction and Storage Temperature Range | -55~+150 | °C   |

**ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C unless otherwise specified)**

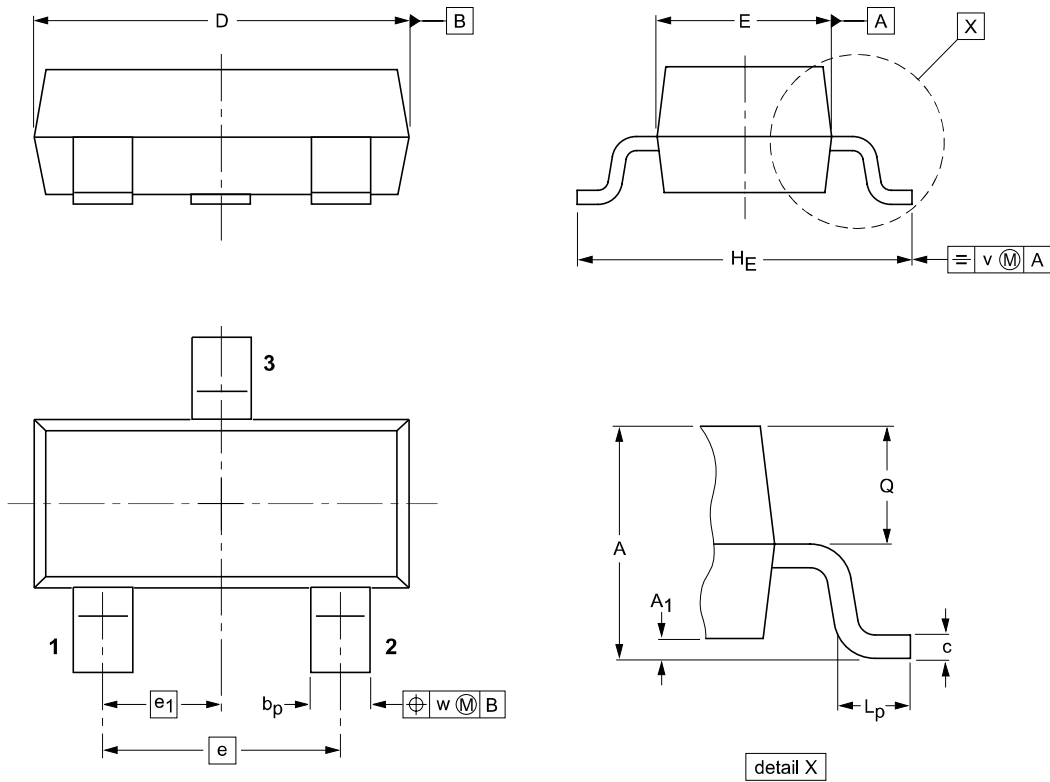
| Parameter                            | Symbol                             | Test conditions                                      | Min | Typ | Max  | Unit |
|--------------------------------------|------------------------------------|--|-----|-----|------|------|
| Collector-base breakdown voltage     | V <sub>(BR)CBO</sub>               | I <sub>C</sub> =100μA, I <sub>E</sub> =0             | 80  |     |      | V    |
| Collector-emitter breakdown voltage  | V <sub>(BR)CEO</sub> <sup>1</sup>  | I <sub>C</sub> =10mA, I <sub>B</sub> =0              | 60  |     |      | V    |
| Emitter-base breakdown voltage       | V <sub>(BR)EBO</sub>               | I <sub>E</sub> =100μA, I <sub>C</sub> =0             | 5   |     |      | V    |
| Collector cut-off current            | I <sub>CBO</sub>                   | V <sub>CB</sub> =60V, I <sub>E</sub> =0              |     |     | 0.1  | μA   |
| Emitter cut-off current              | I <sub>EBO</sub>                   | V <sub>EB</sub> =4V, I <sub>C</sub> =0               |     |     | 0.1  | μA   |
| DC current gain                      | h <sub>FE(1)</sub>                 | V <sub>CE</sub> =5V, I <sub>C</sub> =1mA             | 100 |     |      |      |
|                                      | h <sub>FE(2)</sub> <sup>1</sup>    | V <sub>CE</sub> =5V, I <sub>C</sub> =500mA           | 100 |     | 300  |      |
|                                      | h <sub>FE(3)</sub> <sup>1</sup>    | V <sub>CE</sub> =5V, I <sub>C</sub> =1A              | 80  |     |      |      |
|                                      | h <sub>FE(4)</sub> <sup>1</sup>    | V <sub>CE</sub> =5V, I <sub>C</sub> =2A              | 30  |     |      |      |
| Collector-emitter saturation voltage | V <sub>CE(sat)1</sub> <sup>1</sup> | I <sub>C</sub> =500mA, I <sub>B</sub> =50mA          |     |     | 0.25 | V    |
|                                      | V <sub>CE(sat)2</sub> <sup>1</sup> | I <sub>C</sub> =1A, I <sub>B</sub> =100mA            |     |     | 0.5  | V    |
| Base-emitter saturation voltage      | V <sub>BE(sat)</sub> <sup>1</sup>  | I <sub>C</sub> =1A, I <sub>B</sub> =100mA            |     |     | 1.1  | V    |
| Base-emitter voltage                 | V <sub>BE</sub> <sup>1</sup>       | V <sub>CE</sub> =5V, I <sub>C</sub> =1A              |     |     | 1    | V    |
| Transition frequency                 | f <sub>T</sub>                     | V <sub>CE</sub> =10V, I <sub>C</sub> =50mA, f=100MHz | 150 |     |      | MHz  |
| Collector output capacitance         | C <sub>ob</sub>                    | V <sub>CB</sub> =10V, f=1MHz                         |     |     | 10   | pF   |

<sup>1</sup>Measured under pulsed conditions, Pulse width=300μs, Duty cycle≤2%.



**Package Outline**

**SOT-23**



**DIMENSIONS (mm are the original dimensions)**

| UNIT | A          | A <sub>1</sub><br>max. | b <sub>p</sub> | c            | D          | E          | e   | e <sub>1</sub> | H <sub>E</sub> | L <sub>p</sub> | Q            | v   | w   |
|------|------------|------------------------|----------------|--------------|------------|------------|-----|----------------|----------------|----------------|--------------|-----|-----|
| mm   | 1.1<br>0.9 | 0.1                    | 0.48<br>0.38   | 0.15<br>0.09 | 3.0<br>2.8 | 1.4<br>1.2 | 1.9 | 0.95           | 2.5<br>2.1     | 0.45<br>0.15   | 0.55<br>0.45 | 0.2 | 0.1 |

**Summary of Packing Options**

| Package | Packing Description | Packing Quantity | Industry Standard |
|---------|---------------------|------------------|-------------------|
| SOT-23  | Tape/Reel,7"reel    | 3000             | EIA-481-1         |

单击下面可查看定价，库存，交付和生命周期等信息

[>>YFW\(佑风微\)](#)