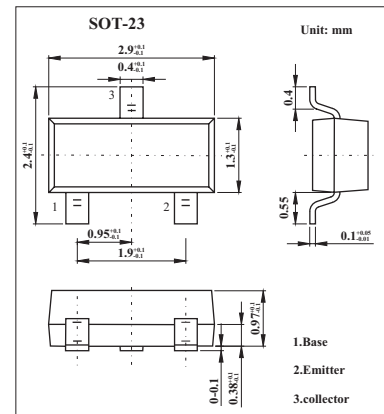


## High Voltage Transistor

## FM596

## ■ Features

- SOT23 PNP silicon planar



## ■ Absolute Maximum Ratings Ta = 25°C

| Parameter                               | Symbol                            | Rating      | Unit |
|---|-----------------------------------|-------------|------|
| Collector-base voltage                  | V <sub>CB0</sub>                  | -220        | V    |
| Collector-emitter voltage               | V <sub>CEO</sub>                  | -200        | V    |
| Emitter-base voltage                    | V <sub>EB0</sub>                  | -5          | V    |
| Peak collector current                  | I <sub>CM</sub>                   | -1          | A    |
| Collector current                       | I <sub>C</sub>                    | -0.3        | A    |
| Base current                            | I <sub>B</sub>                    | -200        | mA   |
| Power dissipation                       | P <sub>tot</sub>                  | 500         | mW   |
| Operating and storage temperature range | T <sub>j</sub> , T <sub>stg</sub> | -55 to +150 | °C   |

## FMMT596

## ■ Electrical Characteristics Ta = 25°C

| Parameter                              | Symbol   | Testconditions               | Min  | Typ | Max   | Unit |
|--|----------|------------------------------|------|-----|-------|------|
| Collector-base breakdown voltage       | V(BR)CBO | IC=-100μA                    | -220 |     |       | V    |
| Collector-emitter breakdown voltage *  | V(BR)CEO | IC=-10mA                     | -200 |     |       | V    |
| Emitter-base breakdown voltage         | V(BR)EBO | IE=-100μA                    | -5   |     |       | V    |
| Collector cutoff current               | ICBO     | VCE=-200V                    |      |     | -100  | nA   |
| Collector-Emitter Cut-Off Current      | ICES     | VCE=-200V                    |      |     | -100  | nA   |
| Emitter cut-off current                | IEBO     | VEB=-4V                      |      |     | -100  | nA   |
| Collector-emitter saturation voltage * | VCE(sat) | IC=-100mA, IB=-10mA          |      |     | -0.2  | V    |
|  |          | IC=-250mA, IB=-25mA          |      |     | -0.35 | V    |
| Base-emitter saturation voltage *      | VBE(sat) | IC=-250mA, IB=-25mA          |      |     | -1.0  | V    |
| Base-emitter voltage *                 | VBE(ON)  | IC=-250mA, VCE=-10V          |      |     | -0.9  | V    |
| Static Forward Current Transfer Ratio  | hFE      | IC=-1mA, VCE=-10V            | 100  |     |       |      |
|  |          | IC=-100mA, VCE=-10V*         | 100  |     |       |      |
|  |          | IC=-250mA, VCE=-10V*         | 85   |     | 300   |      |
|  |          | IC=-400mA, VCE=-10V*         | 35   |     |       |      |
| Current-gain-bandwidth product         | fT       | IC=-50mA, VCE=-10V, f=100MHz | 150  |     |       | MHz  |
| Output capacitance                     | Cobo     | VCE=-10V, f=1MHz             |      |     | 10    | pF   |

\* Pulse test: tp = 300 μs; d ≤ 0.02.

## ■ Marking

|         |     |
|---------|-----|
| Marking | 596 |
|---------|-----|