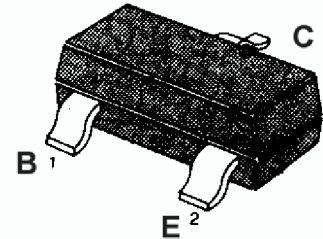


**APPLICATION:** High Voltage ,Switching,Drivers Applications.

**MAXIMUM RATINGS** (Ta=25°C)

| PARAMETER                   | SYMBOL           | RATING  | UNIT |
|-----------------------------|------------------|---------|------|
| Collector-base voltage      | V <sub>CBO</sub> | 400     | V    |
| Collector-emitter voltage   | V <sub>CEO</sub> | 400     | V    |
| Emitter-base voltage        | V <sub>EBO</sub> | 5       | V    |
| Collector current           | I <sub>C</sub>   | 225     | mA   |
| Collector current (Pulse)   | I <sub>CM</sub>  | 1       | A    |
| Base current                | I <sub>B</sub>   | 200     | mA   |
| Collector Power Dissipation | P <sub>C</sub>   | 500     | mW   |
| Junction Temperature        | T <sub>J</sub>   | 150     | °C   |
| Storage Temperature Range   | T <sub>stg</sub> | -55~150 | °C   |

**SOT-23**


1.Base 2 .Emitter 3.Collector

**ELECTRICAL CHARACTERISTICS** (Ta=25°C)

| PARAMETER                            | SYMBOL               | MIN. | TYP. | MAX. | UNIT | TEST CONDITION   |
|--------------------------------------|----------------------|------|------|------|------|--|
| DC Current Gain                      | h <sub>FE1</sub>     | 100  | 300  |      |      | V <sub>CE</sub> = 10V, I <sub>C</sub> = 50mA                   |
|                                      | h <sub>FE2</sub>     | 15   |      |      |      | V <sub>CE</sub> = 10V, I <sub>C</sub> = 100mA                  |
| Collector Cut-off Current            | I <sub>CBO</sub>     |      |      | 0.1  | μ A  | V <sub>CB</sub> = 320V, I <sub>E</sub> =0                      |
| Emitter Cut-off Current              | I <sub>EBO</sub>     |      |      | 0.1  | μ A  | V <sub>EB</sub> = 4V, I <sub>C</sub> =0                        |
| Collector-Base Breakdown Voltage     | BV <sub>CBO</sub>    | 400  |      |      | V    | I <sub>C</sub> = 0.1mA, I <sub>E</sub> =0                      |
| Collector-Emitter Breakdown Voltage  | BV <sub>CEO</sub>    | 400  |      |      | V    | I <sub>C</sub> = 10mA, I <sub>B</sub> =0                       |
| Emitter-Base Breakdown Voltage       | BV <sub>EBO</sub>    | 5    |      |      | V    | I <sub>E</sub> = 0.1mA, I <sub>C</sub> =0                      |
| Base-Emitte Voltage                  | V <sub>BE</sub>      |      |      | 0.9  | V    | V <sub>CE</sub> = 10V, I <sub>C</sub> = 50mA                   |
| Collector-Emitter Saturation Voltage | V <sub>CE(sat)</sub> |      |      | 0.2  | V    | I <sub>C</sub> = 20mA, I <sub>B</sub> = 2mA                    |
|                                      | V <sub>CE(sat)</sub> |      |      | 0.5  | V    | I <sub>C</sub> = 50mA, I <sub>B</sub> = 5mA                    |
| Base-Emitter Saturation Voltage      | V <sub>BE(sat)</sub> |      |      | 0.9  | V    | I <sub>C</sub> = 50mA, I <sub>B</sub> = 5mA                    |
| Gain bandwidth product               | f <sub>T</sub>       | 50   |      |      | MHz  | I <sub>C</sub> = 10mA, V <sub>CE</sub> =20V, f =20MHz          |
| Common Base Output Capacitance       | C <sub>ob</sub>      |      |      | 5    | pF   | V <sub>CB</sub> = 20V, I <sub>E</sub> =0, f = 1MHz             |
| Turn on Time                         | t <sub>on</sub>      |      | 135  |      | ns   | V <sub>CC</sub> = 100V,  |
| Turn off Time                        | t <sub>off</sub>     |      | 2260 |      | ns   | I <sub>C</sub> = 50mA, I <sub>B2</sub> =2I <sub>B1</sub> =10mA |

**h<sub>FE</sub> Classification and Marking**

|                 |      |
|-----------------|------|
| Print Mark      | 458  |
| Classification  |      |
| h <sub>FE</sub> | ≥100 |