

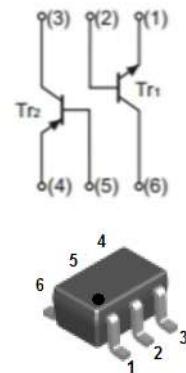


## Features

- Transistor elements are independent, eliminating Interference.
- Mounting cost and area can be cut in half.
- Low VCE(sat).
- Non-Halogen.

## Mechanical Data

- Case: SOT-363

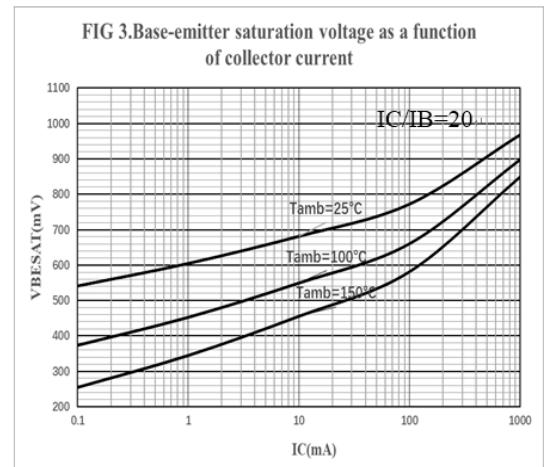
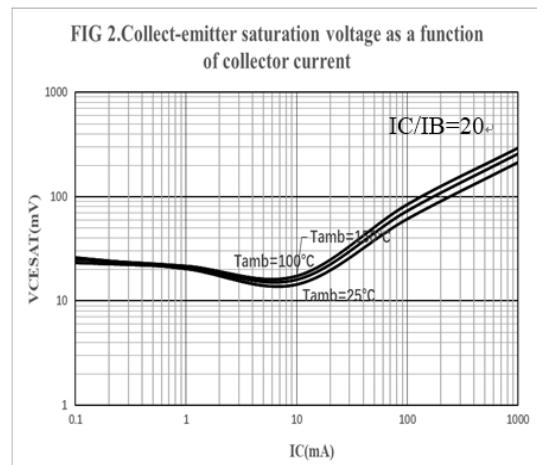
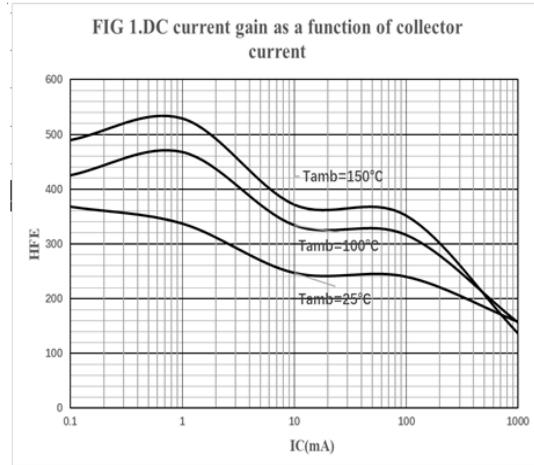
**SOT-363**

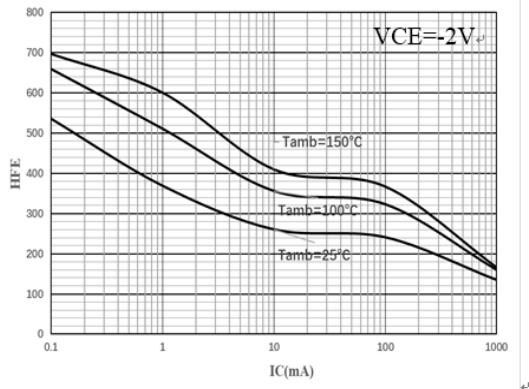
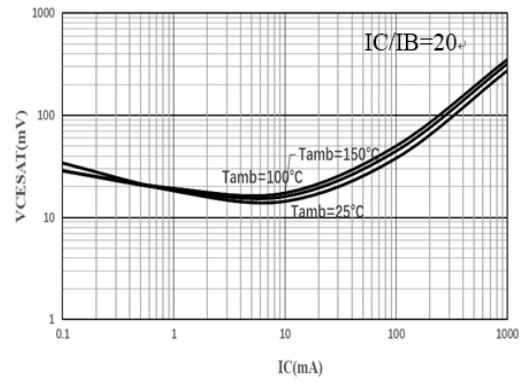
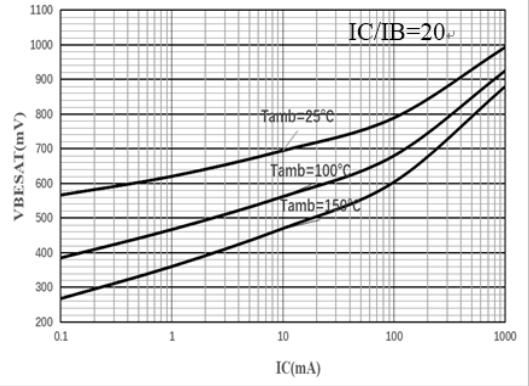
## Maximum Ratings (@T<sub>A</sub>=25°C unless otherwise specified)

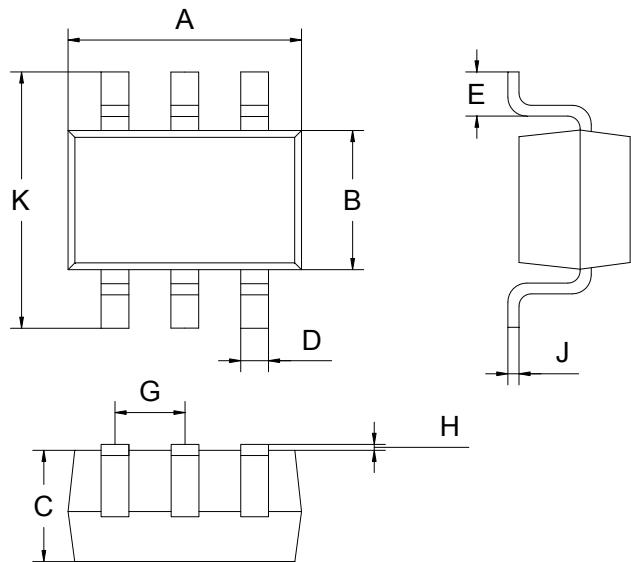
| Symbol                            | Parameter                                     | Value       | Units |
|-----------------------------------|---|-------------|-------|
| <b>Per transistor</b>             |   |             |       |
| V <sub>CBO</sub>                  | Collector-Base Voltage                        | 15          | V     |
| V <sub>CEO</sub>                  | Collector-Emitter Voltage                     | 15          | V     |
| V <sub>EBO</sub>                  | Emitter-Base Voltage                          | 6           | V     |
| I <sub>C</sub>                    | Collector Current - Continuous                | 500         | mA    |
| <b>Thermal Characteristic</b>     |   |             |       |
| P <sub>tot</sub>                  | Total Power Dissipation, T <sub>a</sub> ≤25°C | 200         | mW    |
| T <sub>J</sub>                    | Junction Temperature                          | 150         | °C    |
| T <sub>j</sub> , T <sub>stg</sub> | Junction and Storage Temperature              | -55 to +150 | °C    |
| R <sub>th (j-a)</sub>             | Thermal resistance from junction to ambient   | 625         | °C/W  |

**Electrical Characteristics (@T<sub>A</sub>=25°C unless otherwise specified)**

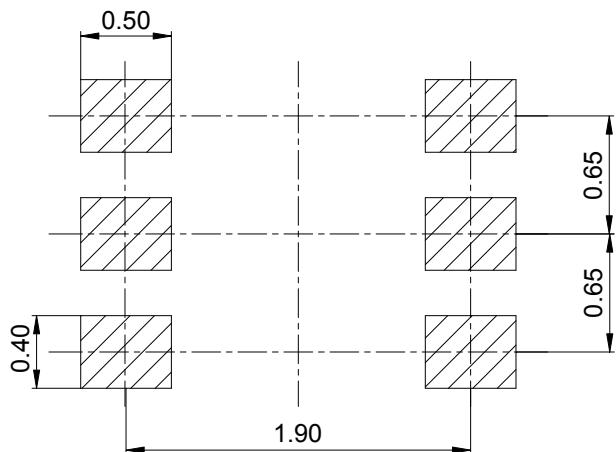
| Parameter                            | Symbol               | Test conditions  | MIN | TYP | MAX | UNIT |
|--------------------------------------|----------------------|--|-----|-----|-----|------|
| Collector-Base Breakdown Voltage     | V <sub>(BR)CBO</sub> | I <sub>C</sub> = 10uA, I <sub>E</sub> = 0              | 15  | -   | -   | V    |
| Collector-Emitter Breakdown Voltage  | V <sub>(BR)CEO</sub> | I <sub>C</sub> = 1mA, I <sub>B</sub> = 0               | 15  | -   | -   | V    |
| Emitter-Base Breakdown Voltage       | V <sub>(BR)EBO</sub> | I <sub>E</sub> = 10uA, I <sub>C</sub> = 0              | 6   | -   | -   | V    |
| RCollector Cut-Off Current           | I <sub>CBO</sub>     | V <sub>CB</sub> = 15V, I <sub>E</sub> = 0              | -   | -   | 0.1 | uA   |
| Emitter Cut-Off Current              | I <sub>EBO</sub>     | V <sub>EB</sub> = 5V, I <sub>C</sub> = 0               | -   | -   | 0.1 | uA   |
| DC Current Gain                      | h <sub>FE</sub>      | V <sub>CE</sub> = 2V, I <sub>C</sub> = 10mA            | 200 | -   | -   |      |
| Output Capacitance                   |                      | V <sub>CE</sub> = 2V, I <sub>C</sub> = 100mA           | 150 | -   | -   |      |
| Reverse Transfer Capacitance         |                      | V <sub>CE</sub> = 2V, I <sub>C</sub> = 500mA           | 90  | -   | -   |      |
| Collector-Emitter Saturation Voltage | V <sub>CE(sat)</sub> | I <sub>C</sub> = 10mA, I <sub>B</sub> = 0.5mA          | -   | -   | 25  | mV   |
|                                      |                      | I <sub>C</sub> = 200mA, I <sub>B</sub> = 10mA          | -   | -   | 150 |      |
|                                      |                      | I <sub>C</sub> = 500mA, I <sub>B</sub> = 50mA          | -   | -   | 250 |      |
| Base-Emitter Saturation Voltage      | V <sub>BE(sat)</sub> | I <sub>C</sub> = 500mA, I <sub>B</sub> = 50mA          | -   | -   | 1.1 | V    |
| Transition Frequency                 | f <sub>T</sub>       | V <sub>CE</sub> = 6V, I <sub>C</sub> = 20mA, f = 30MHz | 150 | -   | -   | MHz  |
| Collector Output Capacitance         | C <sub>ob</sub>      | V <sub>CB</sub> = 10V, I <sub>E</sub> = 0, f = 1MHz    | -   | -   | 10  | pF   |

**Ratings and Characteristic Curves (T<sub>A</sub>=25°C unless otherwise noted)**
**TR1 (NPN):**


**TR2 (PNP):**
**FIG 4.DC current gain as a function of collector current**

**FIG 5.Collect-emitter saturation voltage as a function of collector current**

**FIG 6.Base-emitter saturation voltage as a function of collector current**


**Package Outline Dimensions(unit:mm)**
**SOT-363**


| SOT-363 |      |      |
|---------|------|------|
| Dim     | Min  | Max  |
| A       | 2.00 | 2.20 |
| B       | 1.15 | 1.35 |
| C       | 0.85 | 1.05 |
| D       | 0.15 | 0.35 |
| E       | 0.25 | 0.40 |
| G       | 0.60 | 0.70 |
| H       | 0.02 | 0.10 |
| J       | 0.05 | 0.15 |
| K       | 2.20 | 2.40 |

**SOLDERING FOOTPRINT(unit:mm)**

**Ordering Information**

| Part Number | Package | Shipping       | Marking Code |
|-------------|---------|----------------|--------------|
| LST2515PN   | SOT-363 | 3000/Tape&Reel | 2515         |