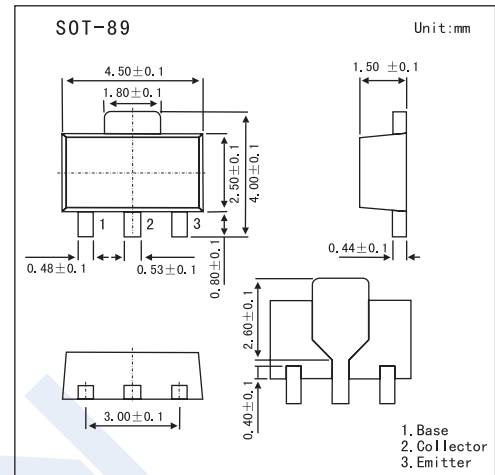


High Voltage Control Applications

2SC3515



■ Features

- High Voltage: $V_{CB0} = 300V$, $V_{CEO} = 300V$
- Low Saturation Voltage: $V_{CE(sat)} = 0.5V$ (max)
- Small Collector Output Capacitance: $C_{ob} = 3pF$ (typ.)
- $P_c = 1$ to $2W$ (mounted on ceramic substrate)
- Small Flat Package
- Complementary to 2SA1384

■ Absolute Maximum Ratings $T_a = 25^\circ C$

| Parameter | Symbol | Rating | Unit |
|-----------------------------|-----------|-------------|------------|
| Collector-Base Voltage | V_{CB0} | 300 | V |
| Collector-Emitter Voltage | V_{CEO} | 300 | V |
| Emitter-Base Voltage | V_{EB0} | 6 | V |
| Collector Current | I_c | 100 | mA |
| Base Current | I_B | 20 | mA |
| Collector Power Dissipation | P_c | 500 | mW |
| | P_c^* | 1000 | |
| Junction temperature | T_j | 150 | $^\circ C$ |
| Storage temperature Range | T_{stg} | -55 to +150 | $^\circ C$ |

* mounted on a ceramic substrate ($250\text{ mm}^2 \times 0.8\text{ t}$)

■ Electrical Characteristics $T_a = 25^\circ C$

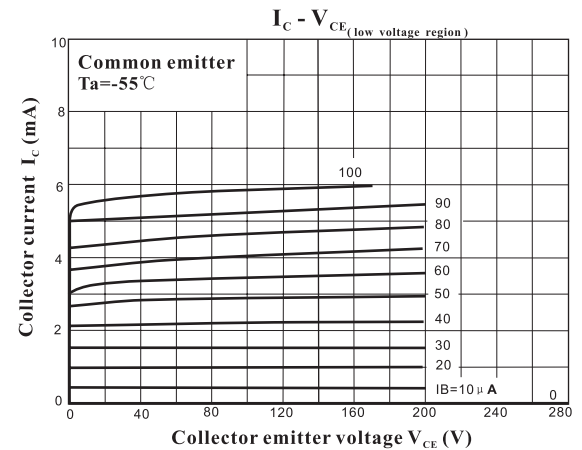
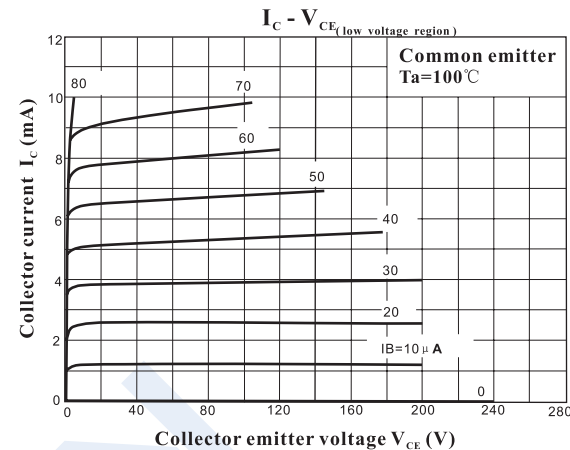
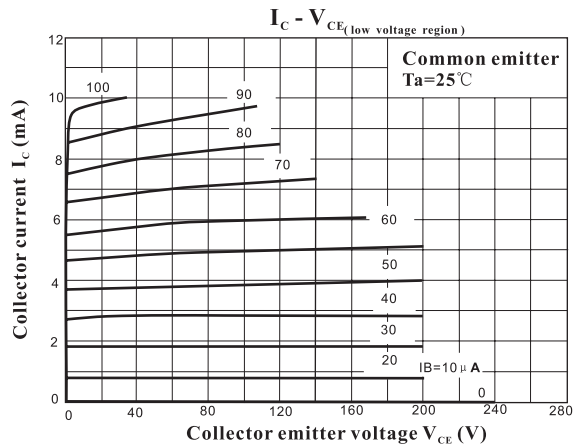
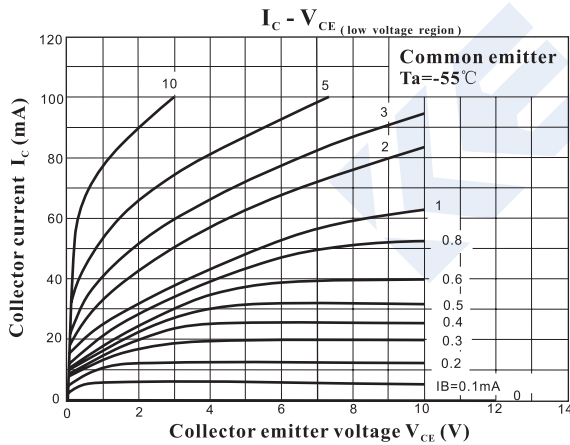
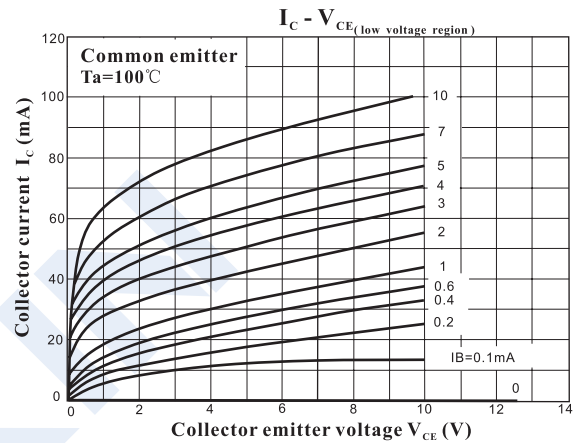
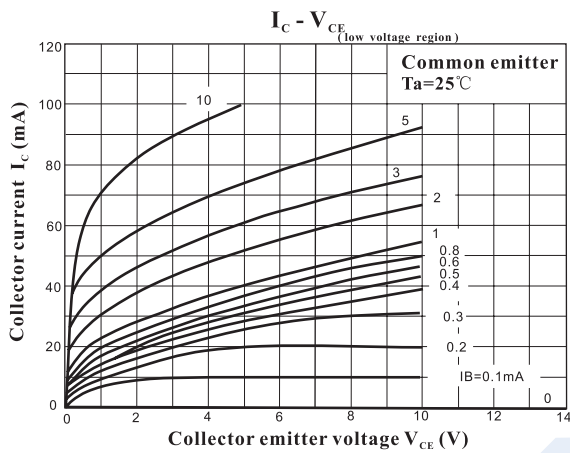
| Parameter | Symbol | Testconditions | Min | Typ | Max | Unit |
|--------------------------------------|---------------|---|-----|-----|-----|---------|
| Collector Cut-off Current | I_{CBO} | $V_{CB} = 300V$, $I_E = 0$ | | | 0.1 | μA |
| Emitter Cut-off Current | I_{EBO} | $V_{EB} = 6V$, $I_C = 0$ | | | 0.1 | μA |
| Collector-base Breakdown Voltage | $V_{(BR)CB0}$ | $I_C = 0.1mA$, $I_E = 0$ | 300 | | | V |
| Collector-emitter Breakdown Voltage | $V_{(BR)CEO}$ | $I_C = 1mA$, $I_B = 0$ | 300 | | | V |
| DC Current Gain | h_{FE} | $V_{CE} = 10V$, $I_C = 20mA$ | 30 | | 150 | |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C = 20mA$, $I_B = 2mA$ | | | 0.5 | V |
| Base-emitter Saturation Voltage | $V_{BE(sat)}$ | $I_C = 20mA$, $I_B = 2mA$ | | | 1 | V |
| Transition Frequency | f_T | $V_{CE} = 10V$, $I_C = 20mA$ | 50 | 80 | | MHz |
| Collector Output Capacitance | C_{ob} | $V_{CB} = 20V$, $I_E = 0$, $f = 1MHz$ | | 3 | 4 | pF |

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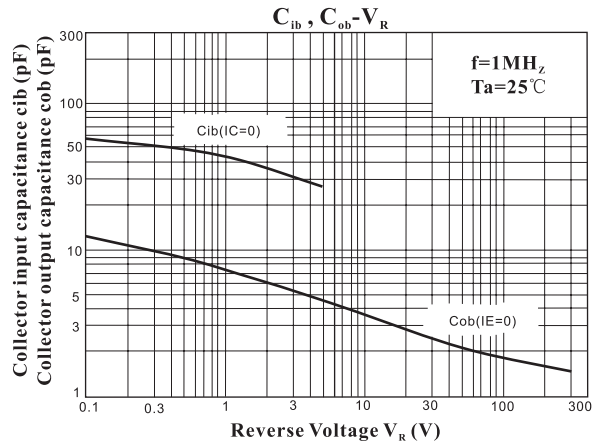
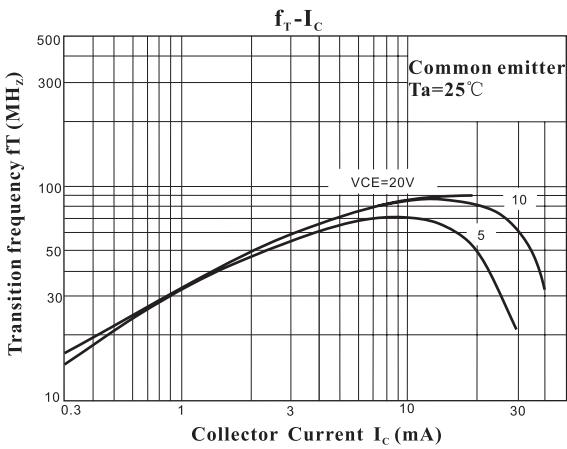
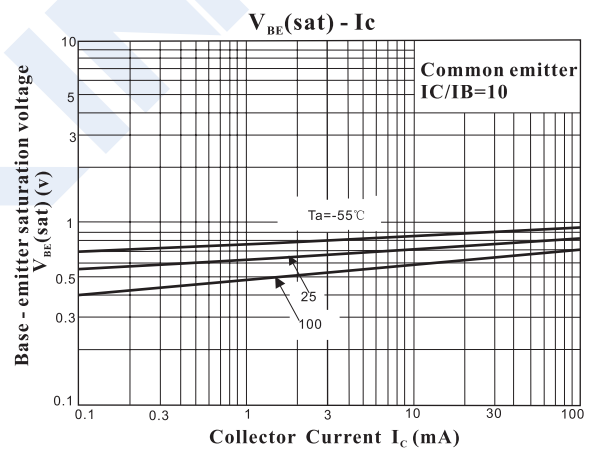
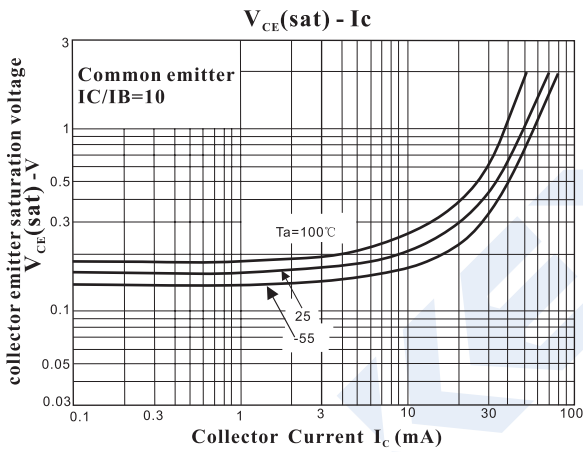
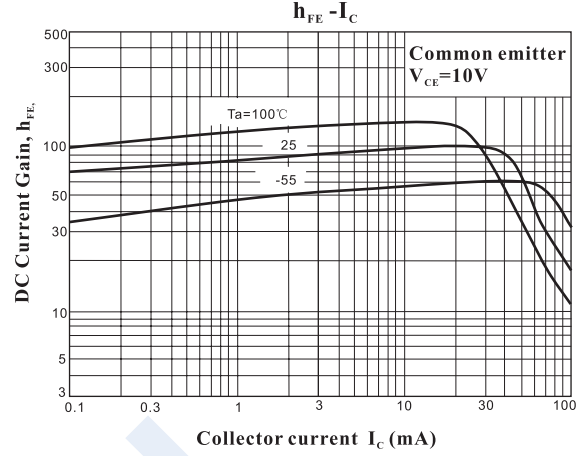
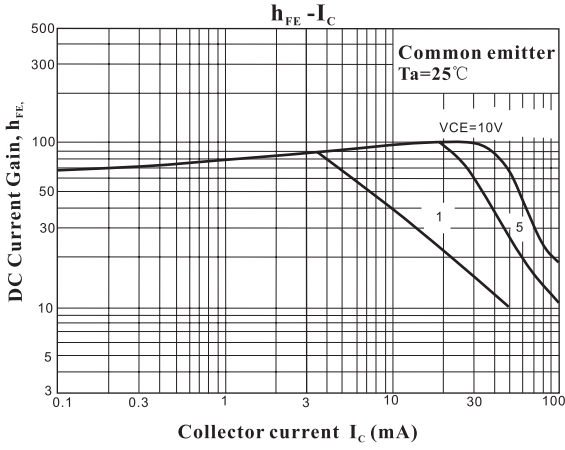
hFE Classification

| | | |
|---------|---------|----------|
| Marking | I | |
| Rank | R | O |
| hFE | 30 ~ 90 | 50 ~ 150 |

Electrical Characteristics Curves



2SC3515



2SC3515

