



2SB1235/2SD1852

Driver Applications

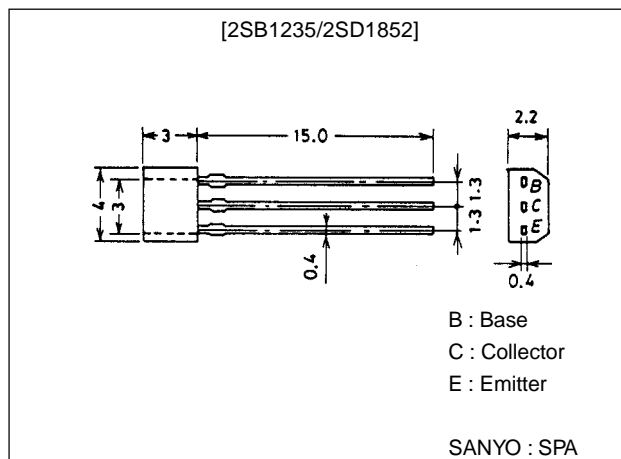
Features

- AF amplifier, solenoid drivers, LED drivers.
- Darlington connection.
- High DC current gain.

Package Dimensions

unit:mm

2033



() : 2SB1235

Specifications

Absolute Maximum Ratings at Ta = 25°C

| Parameter | Symbol | Conditions | Ratings | Unit |
|------------------------------|-----------|------------|-------------|------|
| Collector-to-Base Voltage | V_{CB0} | | (-)80 | V |
| Collector-to-Emitter Voltage | V_{CEO} | | (-)50 | V |
| Emitter-to-Base Voltage | V_{EBO} | | (-)10 | V |
| Collector Current | I_C | | (-)200 | mA |
| Collector Current (Pulse) | I_{CP} | | (-)400 | mA |
| Collector Dissipation | P_C | | 300 | mW |
| Junction Temperature | T_J | | 150 | °C |
| Storage Temperature | T_{stg} | | -55 to +150 | °C |

Electrical Characteristics at Ta = 25°C

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|---|---------------|-------------------------------------|---------|--------|--------|------|
| | | | min | typ | max | |
| Collector Cutoff Current | I_{CBO} | $V_{CB} = (-)60V, I_E = 0$ | | | (-)100 | nA |
| Emitter Cutoff Current | I_{EBO} | $V_{EB} = (-)8V, I_C = 0$ | | | (-)100 | nA |
| DC Current Gain | h_{FE1} | $V_{CE} = (-)2V, I_C = (-)10mA$ | 5000 | | | |
| | | | 4000 | | | |
| | | | (3000) | | | |
| Collector-to-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C = (-)100mA, I_B = (-)100\mu A$ | | (-)0.9 | (-)1.5 | V |
| Base-to-Emitter Saturation Voltage | $V_{BE(sat)}$ | $I_C = (-)100mA, I_B = (-)100\mu A$ | | (-)1.5 | (-)2.0 | V |
| Collector-to-Base Breakdown Voltage | $V_{(BR)CBO}$ | $I_C = (-)10\mu A, I_E = 0$ | (-)80 | | | V |
| Collector-to-Emitter Breakdown Voltage | $V_{(BR)CEO}$ | $I_C = (-)1mA, R_{BE} = \infty$ | (-)50 | | | V |
| Emitter-to-Base Breakdown Voltage | $V_{(BR)EBO}$ | $I_C = (-)10\mu A, I_C = 0$ | (-)10 | | | V |

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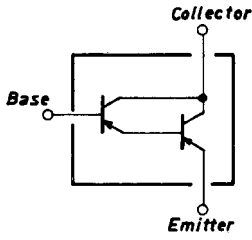
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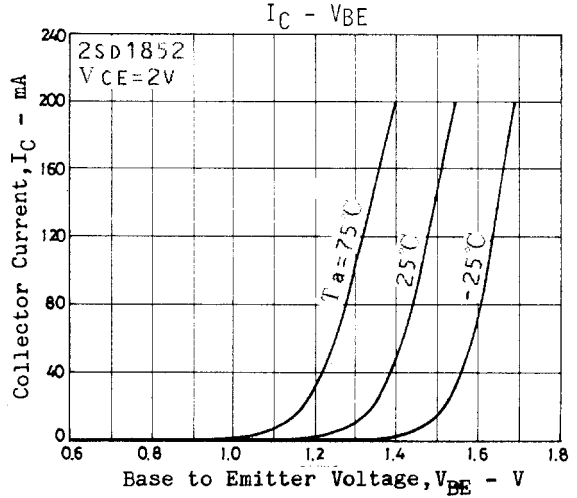
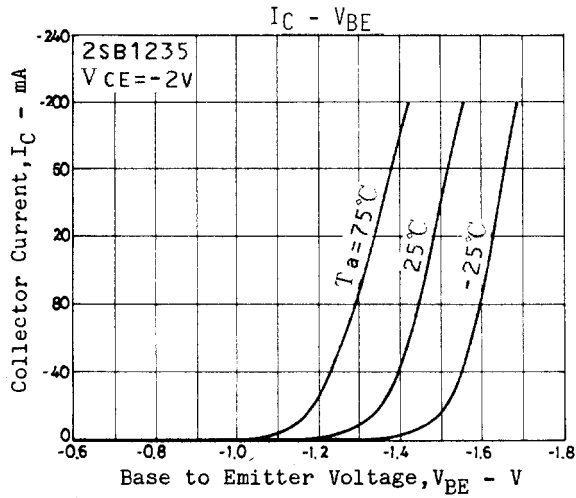
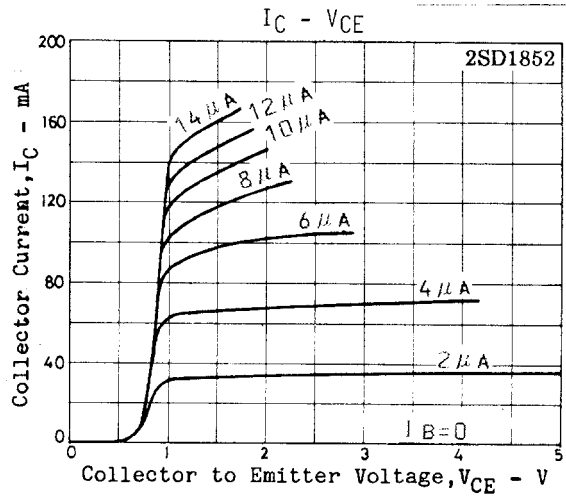
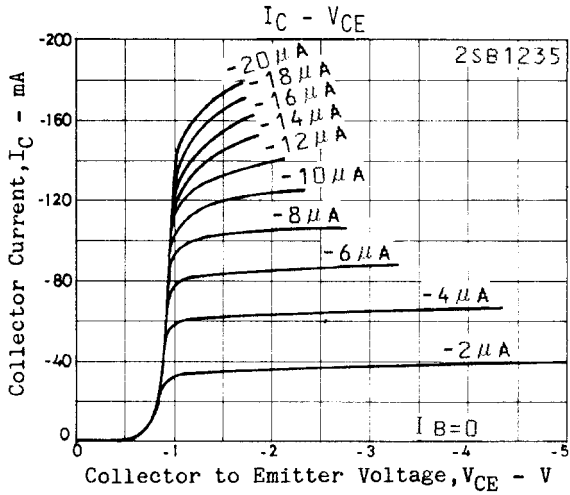
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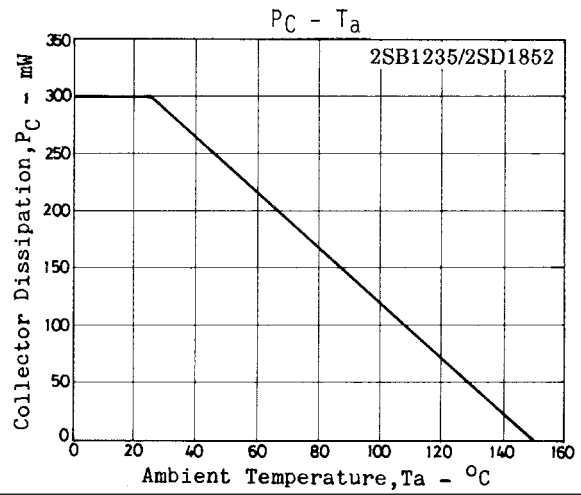
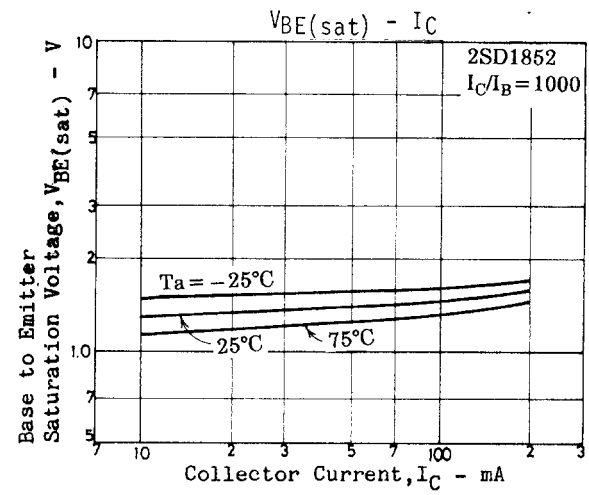
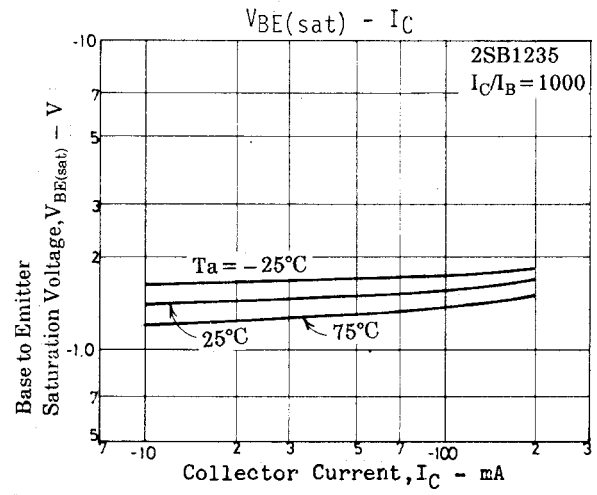
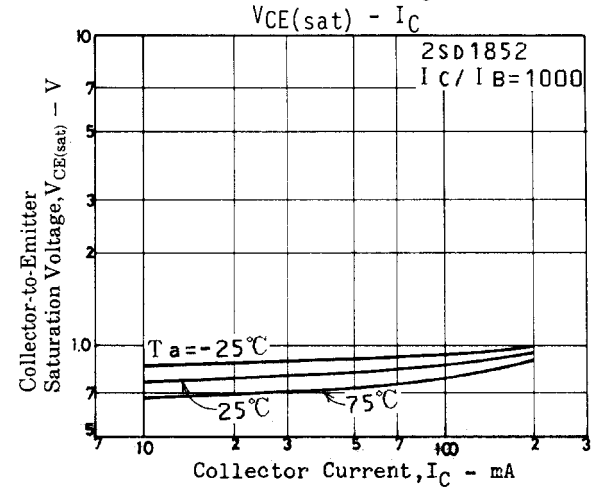
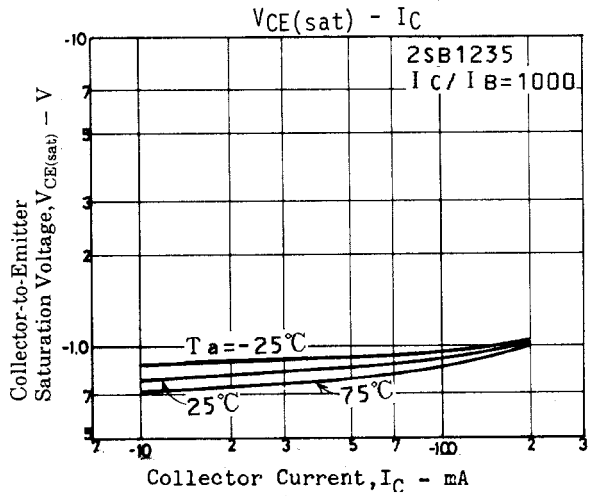
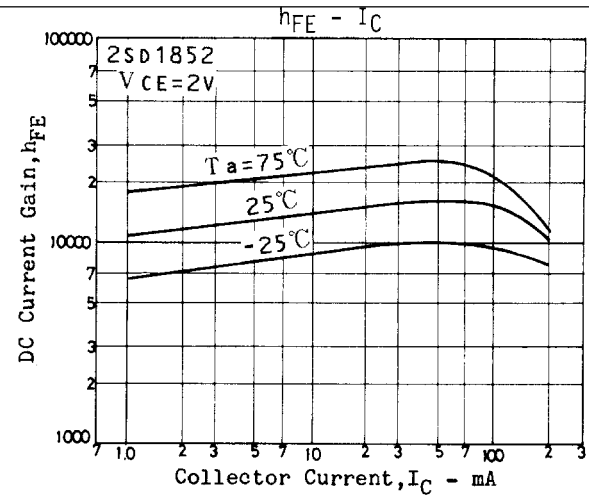
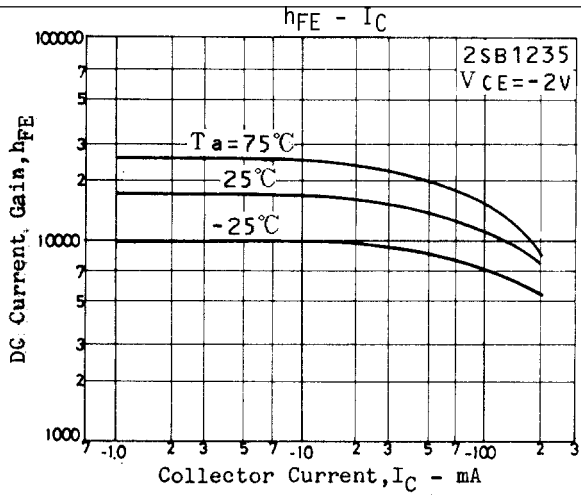
Electrical Connection



(For NPN, the polarity is reversed.)



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