

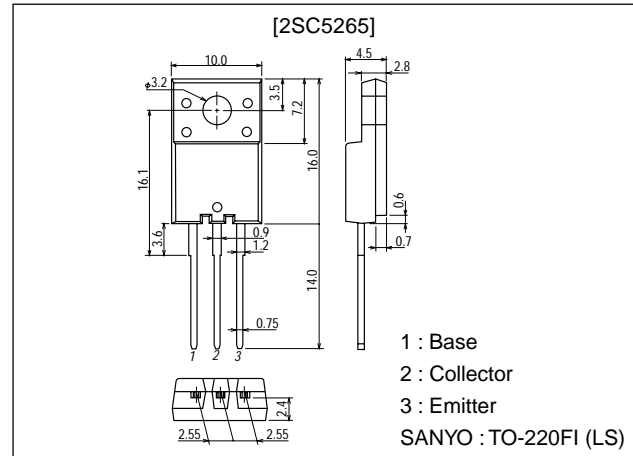
**2SC5265****Inverter-controlled Lighting Applications****Features**

- High breakdown voltage ( $V_{CBO}=1200V$ ).
- High reliability (Adoption of HVP process).
- Adoption of MBIT process.

**Package Dimensions**

unit:mm

2079B

**Specifications****Absolute Maximum Ratings at  $T_a = 25^\circ C$** 

| Parameter                    | Symbol    | Conditions       | Ratings     | Unit       |
|------------------------------|-----------|------------------|-------------|------------|
| Collector-to-Base Voltage    | $V_{CBO}$ |                  | 1200        | V          |
| Collector-to-Emitter Voltage | $V_{CEO}$ |                  | 600         | V          |
| Emitter-to-Base Voltage      | $V_{EBO}$ |                  | 9           | V          |
| Collector Current            | $I_C$     |                  | 4           | A          |
| Collector Current (Pulse)    | $I_{CP}$  |                  | 8           | A          |
| Collector Dissipation        | $P_C$     |                  | 2           | W          |
|                              |           | $T_c=25^\circ C$ | 30          | W          |
| Junction Temperature         | $T_j$     |                  | 150         | $^\circ C$ |
| Storage Temperature          | $T_{stg}$ |                  | -55 to +150 | $^\circ C$ |

**Electrical Characteristics at  $T_a = 25^\circ C$** 

| Parameter                               | Symbol         | Conditions               | Ratings |     |     | Unit    |
|---|----------------|--------------------------|---------|-----|-----|---------|
|   |                |                          | min     | typ | max |         |
| Collector Cutoff Current                | $I_{CBO}$      | $V_{CB}=600V, I_E=0$     |         |     | 10  | $\mu A$ |
|   | $I_{CES}$      | $V_{CE}=1200V, R_{BE}=0$ |         |     | 1.0 | mA      |
| Collector-to-Emitter Sustain Voltage    | $V_{CEO(sus)}$ | $I_C=100mA, I_B=0$       | 600     |     |     | V       |
| Emitter Cutoff Current                  | $I_{EBO}$      | $V_{EB}=9V, I_C=0$       |         |     | 1.0 | mA      |
| Collector-to-Emitter Saturation Voltage | $V_{CE(sat)}$  | $I_C=2.0A, I_B=0.4A$     |         |     | 1.0 | V       |
| Base-to-Emitter Saturation Voltage      | $V_{BE(sat)}$  | $I_C=2.0A, I_B=0.4A$     |         |     | 1.5 | V       |

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**SANYO Electric Co., Ltd. Semiconductor Business Headquarters**

TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

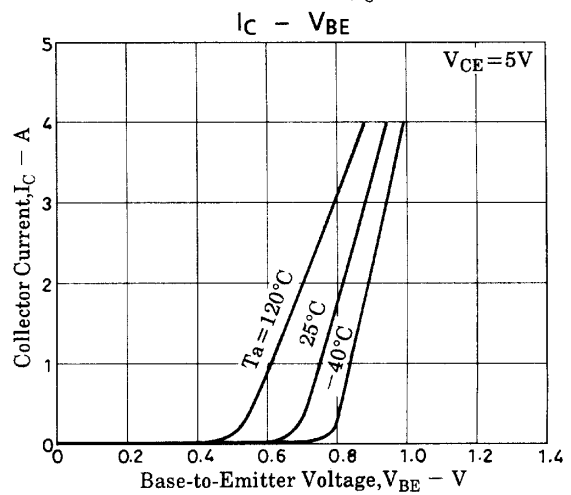
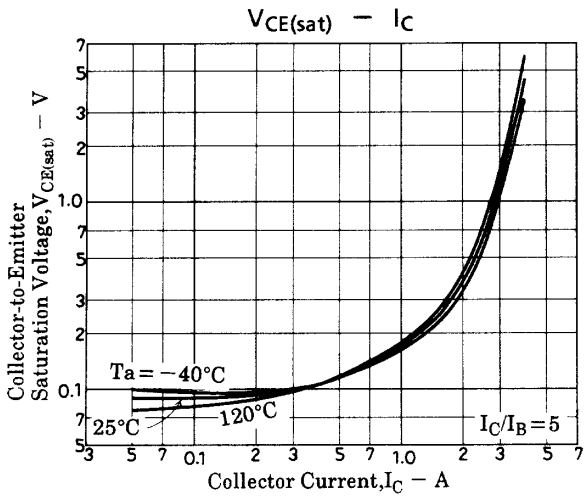
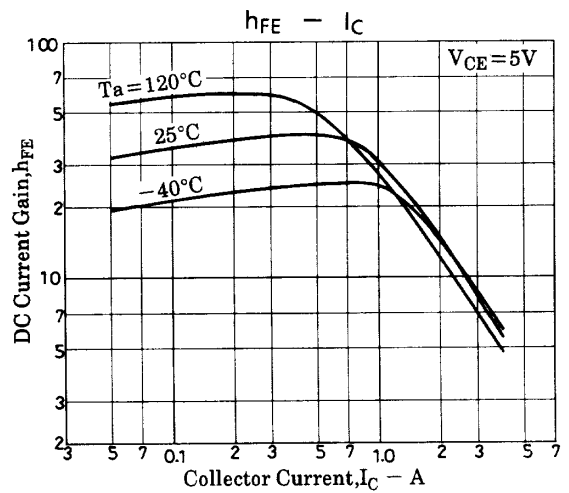
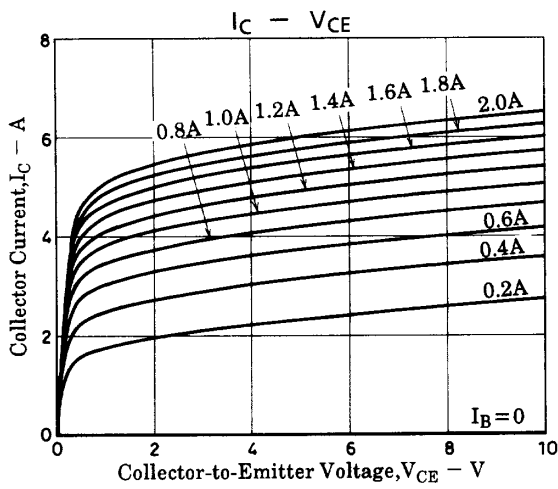
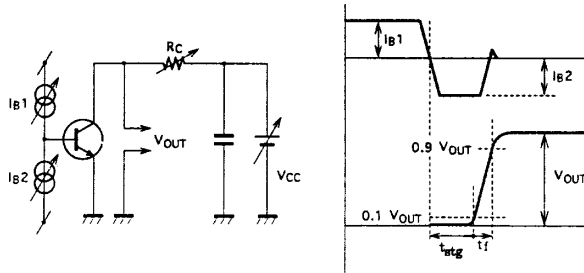
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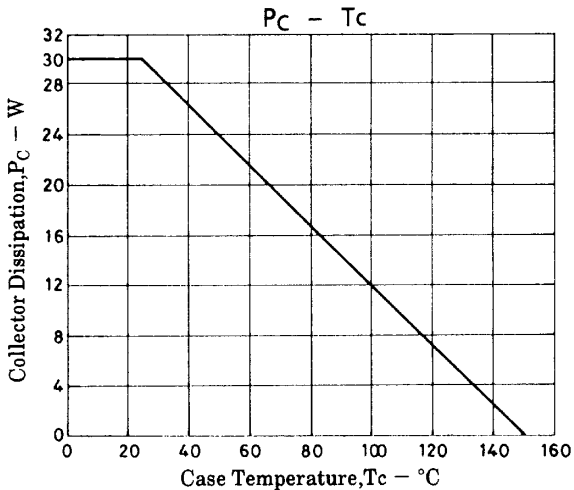
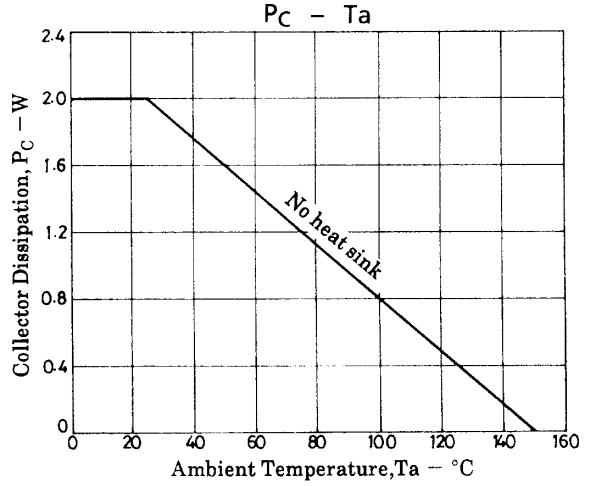
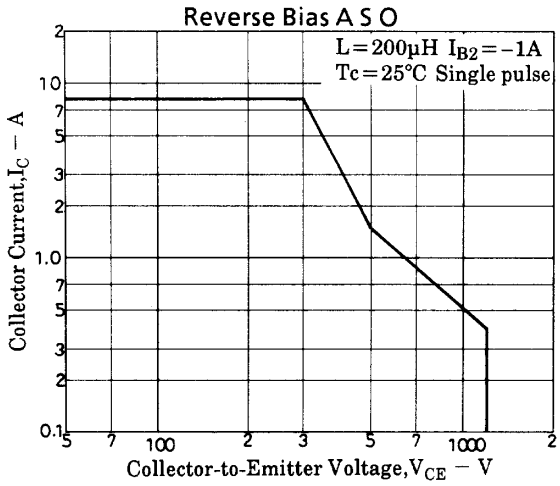
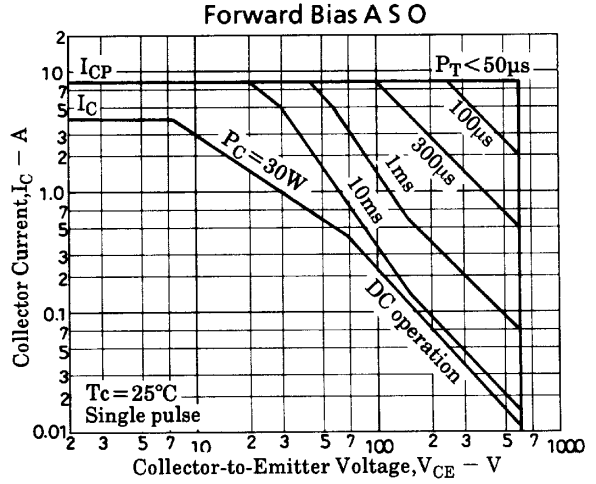
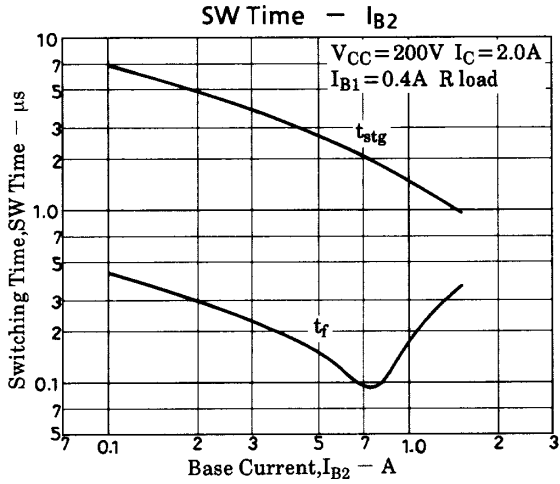
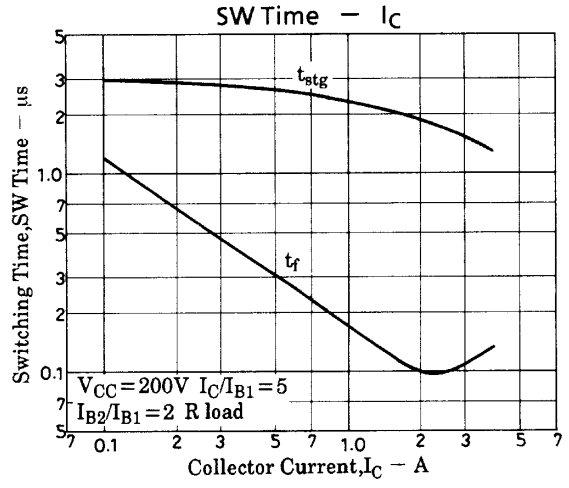
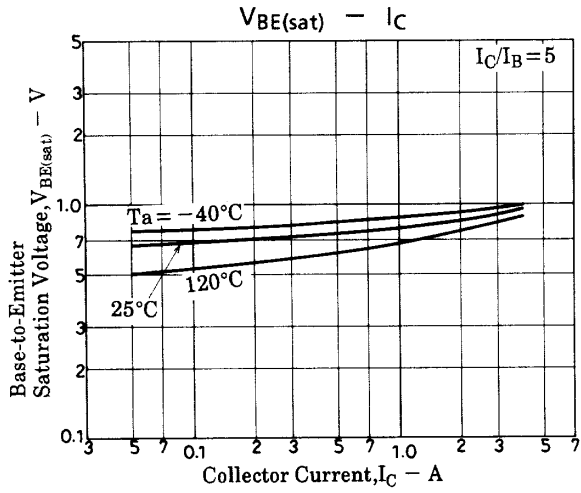
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| Parameter       | Symbol    | Conditions                            | Ratings |     |      | Unit    |
|-----------------|-----------|---------------------------------------|---------|-----|------|---------|
|                 |           |                                       | min     | typ | max  |         |
| DC Current Gain | $h_{FE1}$ | $V_{CE}=5V, I_C=0.3A$                 | 30      | 40  | 50   |         |
|                 | $h_{FE2}$ | $V_{CE}=5V, I_C=1.5A$                 | 10      |     |      |         |
| Storage Time    | $t_{stg}$ | $I_C=2.0A, I_{B1}=0.4A, I_{B2}=-0.8A$ |         |     | 2.5  | $\mu s$ |
| Fall Time       | $t_f$     | $I_C=2.0A, I_{B1}=0.4A, I_{B2}=-0.8A$ |         |     | 0.15 | $\mu s$ |

## Switching Time Test Circuit



# 2SC5265



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