

**2SC4547****85V/3A Driver Applications****Applications**

- Suitable for use in switching of L load (motor drivers, printer hammer drivers, relay drivers).

Features

- High DC current gain.
- Large current capacity and Wide ASO.
- Contains Zener diode of $95\pm 10V$ between collector and base.
- Uniformity in collector-to-base voltage due to adoption of accurate impurity diffusion process.
- High inductive load handling capability.

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

| Parameter | Symbol | Conditions | Ratings | Unit |
|------------------------------|-----------|------------------|-------------|------------|
| Collector-to-Base Voltage | V_{CBO} | | 85* | V |
| Collector-to-Emitter Voltage | V_{CEO} | | 85* | V |
| Emitter-to-Base Voltage | V_{EBO} | | 6 | V |
| Collector Current | I_C | | 3 | A |
| Collector Current (Pulse) | I_{CP} | | 5 | A |
| Base Current | I_B | | 0.5 | A |
| Collector Dissipation | P_C | | 1.75 | W |
| | | $T_c=25^\circ C$ | 30 | W |
| Junction Temperature | T_j | | 150 | $^\circ C$ |
| Storage Temperature | T_{stg} | | -55 to +150 | $^\circ C$ |

* : With Zener diode of ($95\pm 10V$).**Electrical Characteristics at $T_a = 25^\circ C$**

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|---|---------------|-----------------------|---------|------|-----|---------|
| | | | min | typ | max | |
| Collector Cutoff Current | I_{CBO} | $V_{CB}=70V, I_E=0$ | | | 10 | μA |
| Emitter Cutoff Current | I_{EBO} | $V_{EB}=5V, I_C=0$ | | | 3 | mA |
| DC Current Gain | h_{FE} | $V_{CE}=3V, I_C=1.5A$ | 2000 | 6000 | | |
| Gain-Bandwidth Product | f_T | $V_{CE}=5V, I_C=1.5A$ | | 50 | | MHz |
| Collector-to-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=1.5A, I_B=3mA$ | | 0.9 | 1.5 | V |
| Base-to-Emitter Saturation Voltage | $V_{BE(sat)}$ | $I_C=1.5A, I_B=3mA$ | | | 2.0 | V |

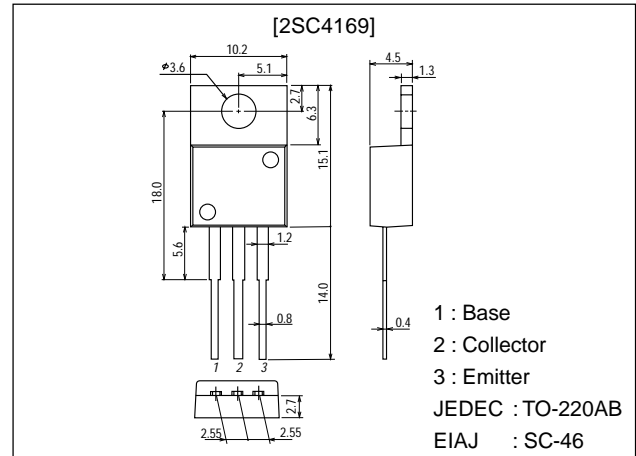
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Package Dimensions

unit:mm

2010C

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

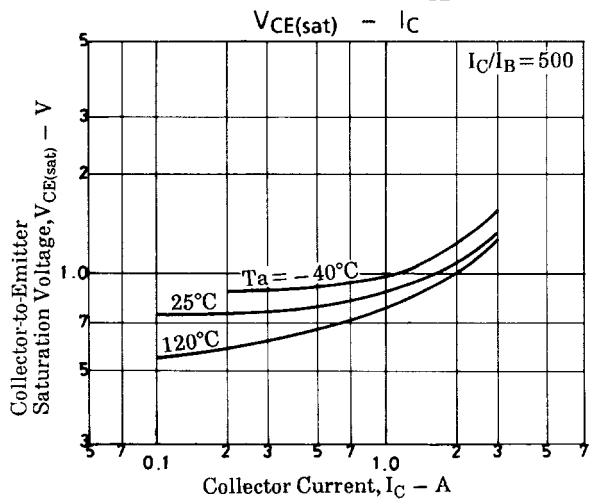
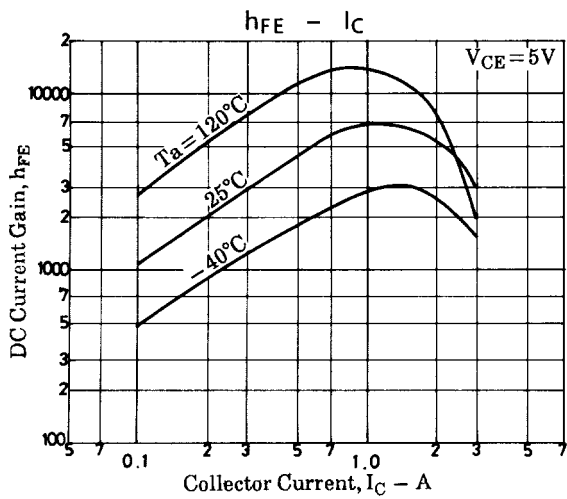
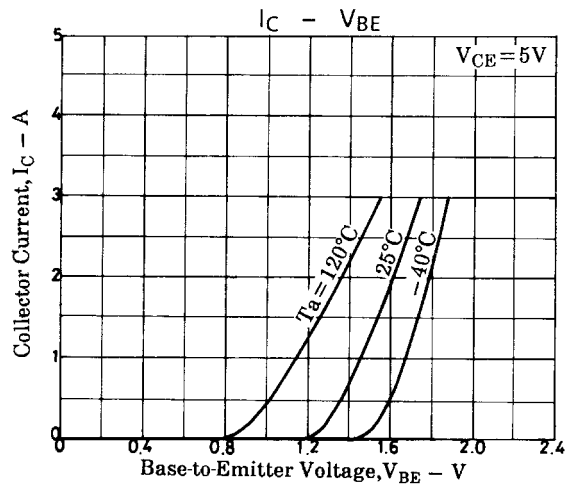
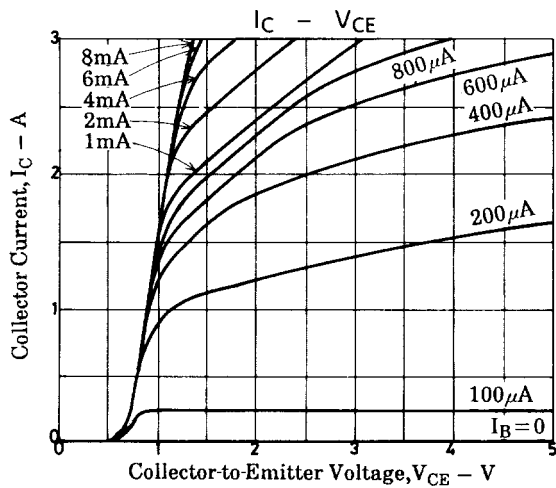
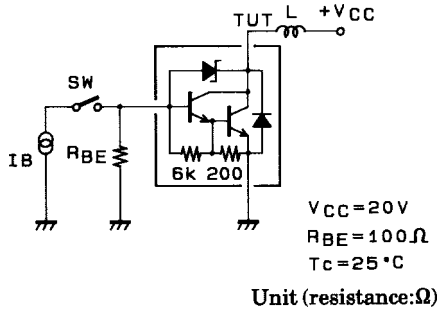
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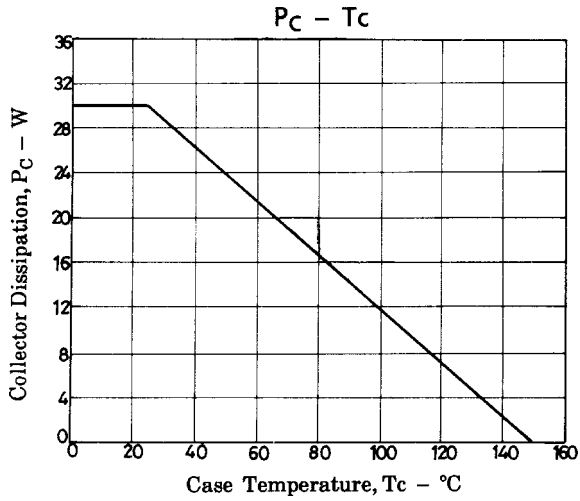
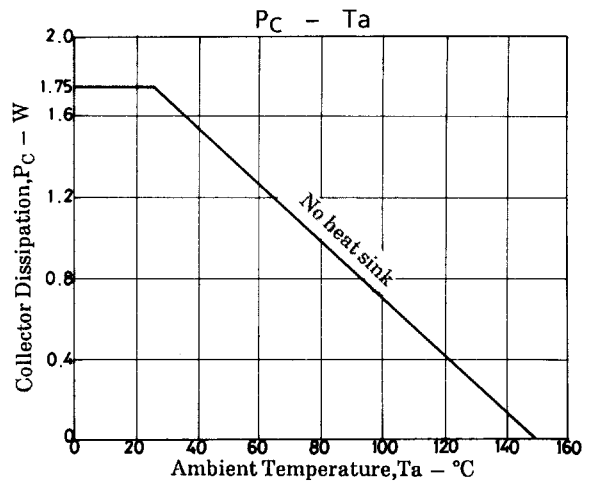
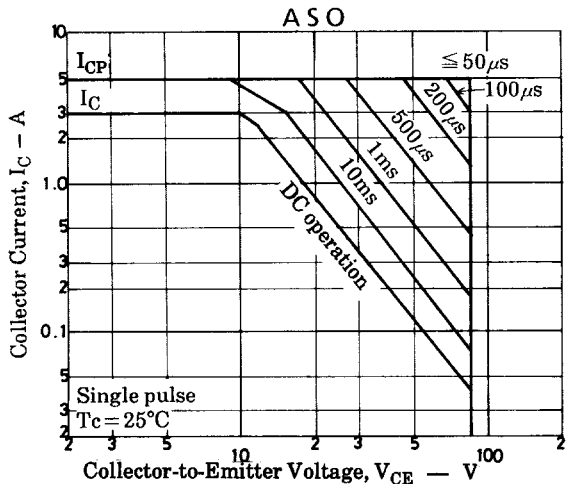
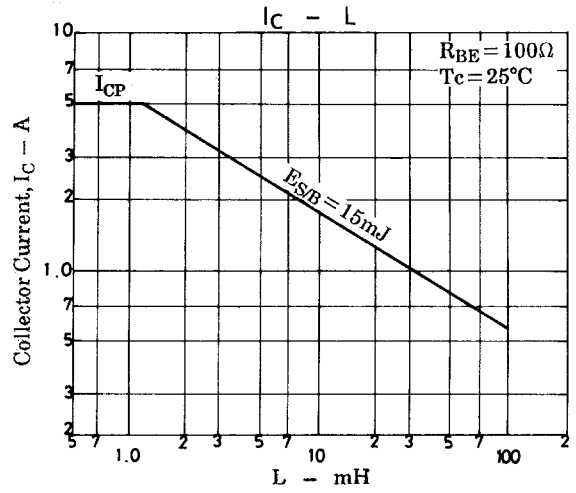
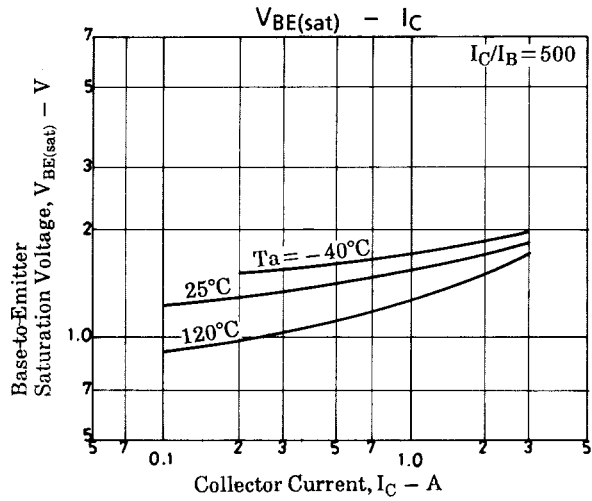
2SC4547

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|--|---------------|-----------------------------|---------|-----|-----|------|
| | | | min | typ | max | |
| Collector-to-Base Breakdown Voltage | $V_{(BR)CBO}$ | $I_C=0.1mA, I_E=0$ | 85 | 95 | 105 | V |
| Collector-to-Emitter Breakdown Voltage | $V_{(BR)CEO}$ | $I_C=1mA, R_{BE}=\infty$ | 85 | 95 | 105 | V |
| Inductive Load Voltage | Es/b | $L=100mH, R_{BE}=100\Omega$ | 15 | | | mJ |

Es/b Test Circuit



2SC4547



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