



2SB985/2SD1347

Large-Current Driving Applications

Applications

- Power supplies, relay drivers, lamp drivers, electrical equipment.

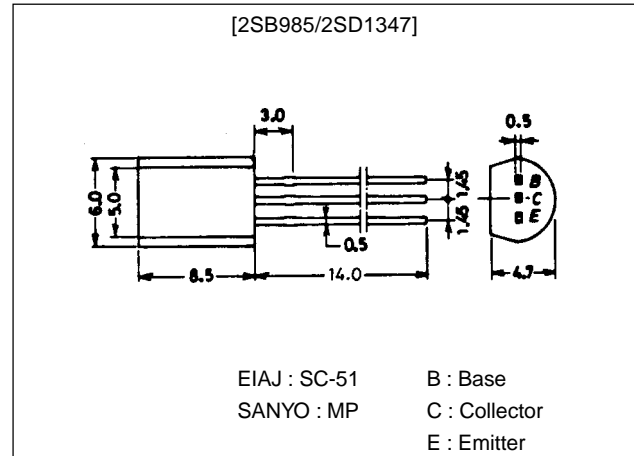
Features

- Adoption of FBET, MBIT processes.
- Low saturation voltage.
- Large current capacity and wide ASO.

Package Dimensions

unit:mm

2006A



() : 2SB985

Specifications

Absolute Maximum Ratings at Ta = 25°C

| Parameter | Symbol | Conditions | Ratings | Unit |
|------------------------------|-----------|------------|-------------|------|
| Collector-to-Base Voltage | V_{CB0} | | (-)60 | V |
| Collector-to-Emitter Voltage | V_{CE0} | | (-)50 | V |
| Emitter-to-Base Voltage | V_{EB0} | | (-)6 | V |
| Collector Current | I_C | | (-)3 | A |
| Collector Current (Pulse) | I_{CP} | | (-)6 | A |
| Collector Dissipation | P_C | | 1 | W |
| 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_{CB0} | $V_{CB}=(-)40V, I_E=0$ | | | (-)1.0 | μA |
| Emitter Cutoff Current | I_{EB0} | $V_{EB}=(-)4V, I_C=0$ | | | (-)1.0 | μA |
| DC Current Gain | h_{FE1} | $V_{CE}=(-)2V, I_C=(-)100mA$ | 100* | | 560* | |
| | h_{FE2} | $V_{CE}=(-)2V, I_C=(-)3A$ | 40 | | | |
| Gain-Bandwidth Product | f_T | $V_{CE}=(-)10V, I_C=(-)50mA$ | | 150 | | MHz |
| Common Base Output Capacitance | C_{ob} | $V_{CB}=(-)10V, f=1MHz$ | | 25(39) | | pF |

* : The 2SB985/2SD1347 are classified by 100mA h_{FE} as follows :

| | | | | | | | | | | | |
|-----|---|-----|-----|---|-----|-----|---|-----|-----|---|-----|
| 100 | R | 200 | 140 | S | 280 | 200 | T | 400 | 280 | U | 560 |
|-----|---|-----|-----|---|-----|-----|---|-----|-----|---|-----|

■ Any and all SANYO products described or contained herein do not have specifications that can handle applications that require extremely high levels of reliability, such as life-support systems, aircraft's control systems, or other applications whose failure can be reasonably expected to result in serious physical and/or material damage. Consult with your SANYO representative nearest you before using any SANYO products described or contained herein in such applications.

■ SANYO assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all SANYO products described or contained herein.

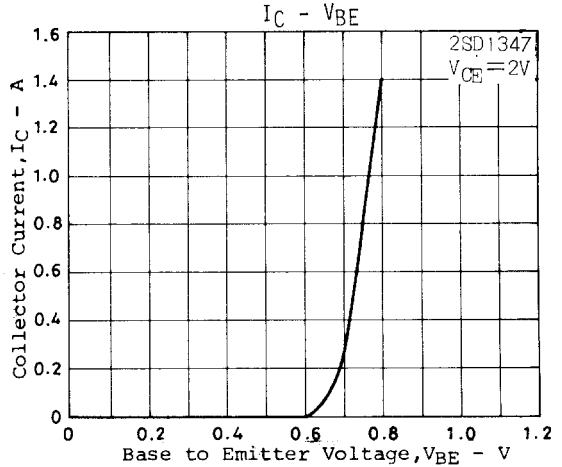
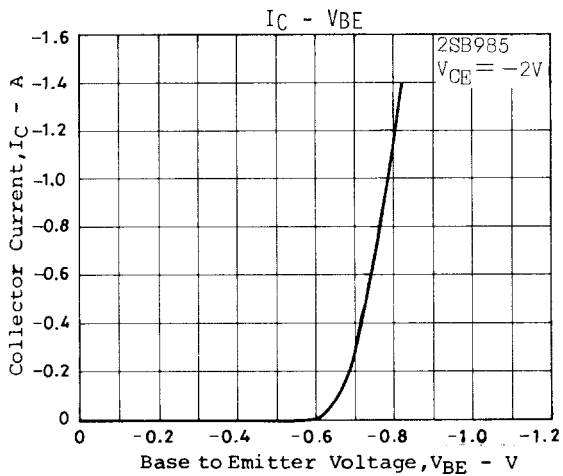
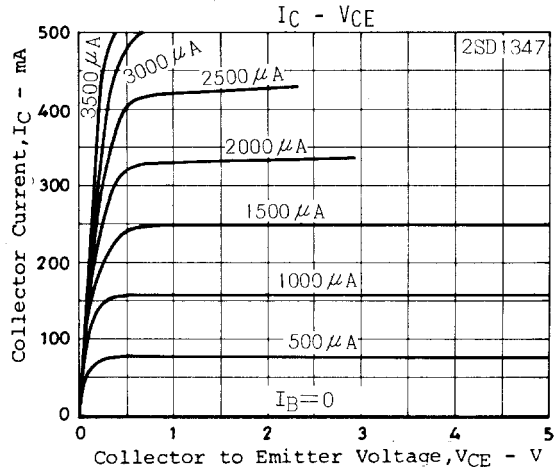
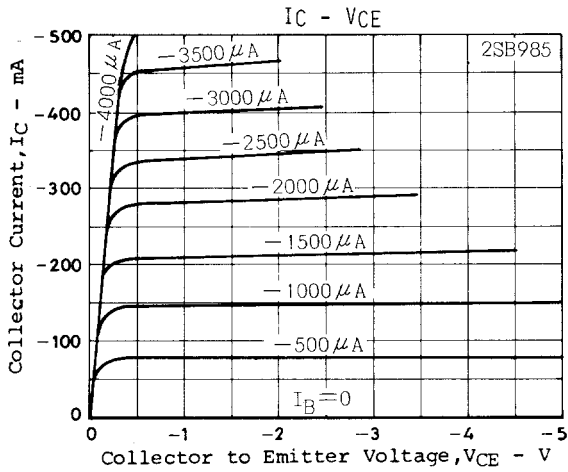
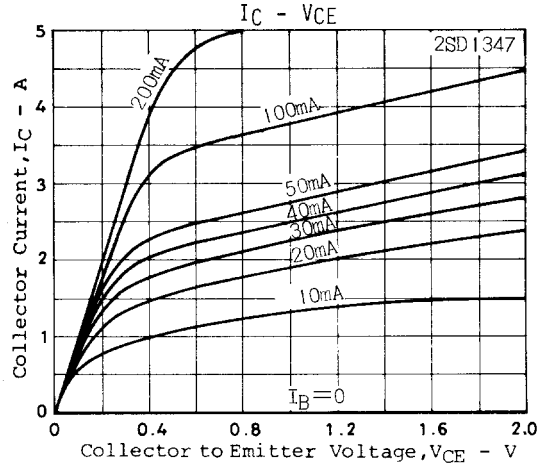
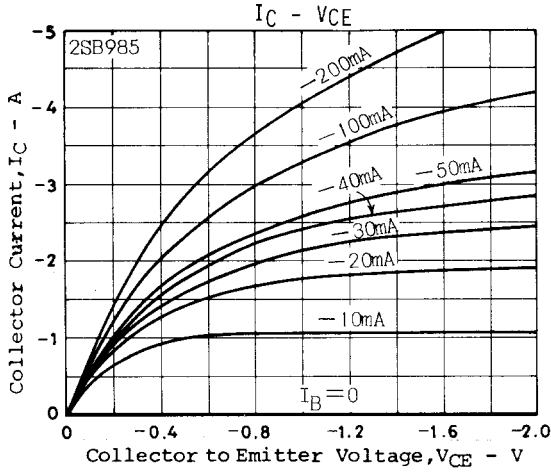
SANYO Electric Co., Ltd. Semiconductor Business Headquarters

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

92098HA (KT)/4077KI/D064MW/1253KI, TS No.1244-1/4

2SB985/2SD1347

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|---|---------------|-----------------------------|---------|---------|--------|------|
| | | | min | typ | max | |
| Collector-to-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=(-)2A, I_B=(-)100mA$ | | 0.19 | 0.5 | V |
| | | | | (-0.35) | (-0.7) | V |
| Base-to-Emitter Saturation Voltage | $V_{BE(sat)}$ | $I_C=(-)2A, I_B=(-)100mA$ | | (-0.94) | (-1.2) | V |
| Collector-to-Base Breakdown Voltage | $V_{(BR)CBO}$ | $I_C=(-)10\mu A, I_E=0$ | (-60) | | | V |
| Collector-to-Emitter Breakdown Voltage | $V_{(BR)CEO}$ | $I_C=(-)1mA, R_{BE}=\infty$ | (-50) | | | V |
| Emitter-to-Base Breakdown Voltage | $V_{(BR)EBO}$ | $I_E=(-)10\mu A, I_C=0$ | (-6) | | | V |



2SB985/2SD1347

