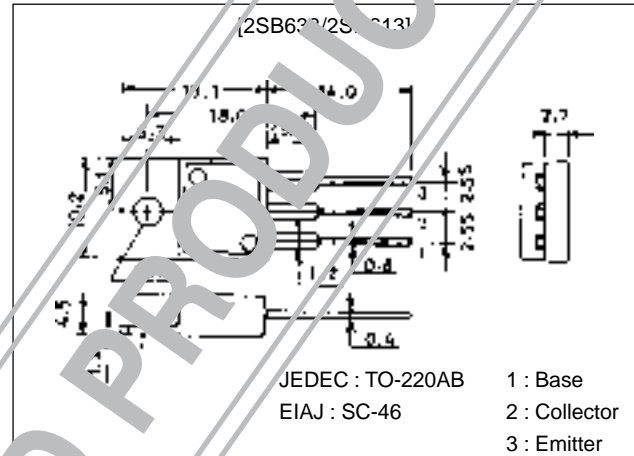


SANYO**2SB633/2SD613****85V/6A, AF 25 to 35W Output Applications****Features**

- High breakdown voltage, $V_{CE0}85V$, high current 6A.
- AF25 to 35W output.

Package Dimensionsunit:mm
2010C

() : 2SB633

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

| Parameter | Symbol | Conditions | Ratings | Unit |
|------------------------------|-----------|------------------|-------------|------------|
| Collector-to-Base Voltage | V_{CBO} | | (-)100 | V |
| Collector-to-Emitter Voltage | V_{CEO} | | (-)85 | V |
| Emitter-to-Base Voltage | V_{EBO} | | (-)6 | V |
| Collector Current | I_C | | (-)6 | A |
| Collector Current (Pulse) | I_{CP} | | (-)10 | A |
| Collector Dissipation | P_C | $T_c=25^\circ C$ | 40 | 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} | $V_{CB}=(-)40V, I_E=0$ | | | (-)0.1 | mA |
| Emitter Cutoff Current | I_{EBO} | $V_{EB}=(-)4V, I_C=0$ | | | (-)0.1 | mA |
| DC Current Gain | h_{FE1} | $V_{CE}=(-)5V, I_C=(-)1A$ | 40* | | 320* | |
| | h_{FE2} | $V_{CE}=(-)5V, I_C=(-)3A$ | 20 | | | |
| Gain-Bandwidth Product | f_T | $V_{CE}=(-)5V, I_C=(-)1A$ | | 15 | | MHz |
| Collector-to-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=(-)4A, I_B=(-)0.4A$ | | | (-)2.0 | V |
| Base-to-Emitter Voltage | V_{BE} | $I_E=(-)5A, I_C=(-)1A$ | | | (-)1.5 | V |
| Output Capacitance | C_{ob} | $V_{CB}=(-)10V, f=1MHz$ | | (150) | | pF |
| | | | | 110 | | pF |

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■ 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.

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91098HA (KT)/90595MO (KOTO)/D251MH/4017KI/1115MW, TS/No.174, 8-2629 No.513-1/4

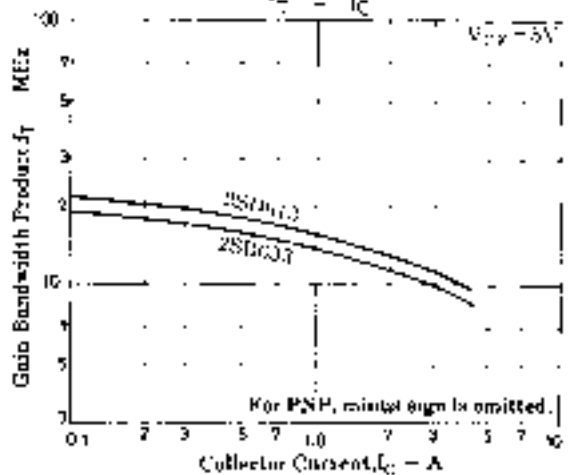
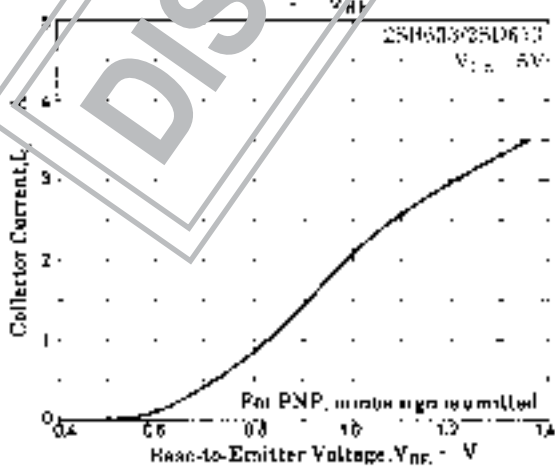
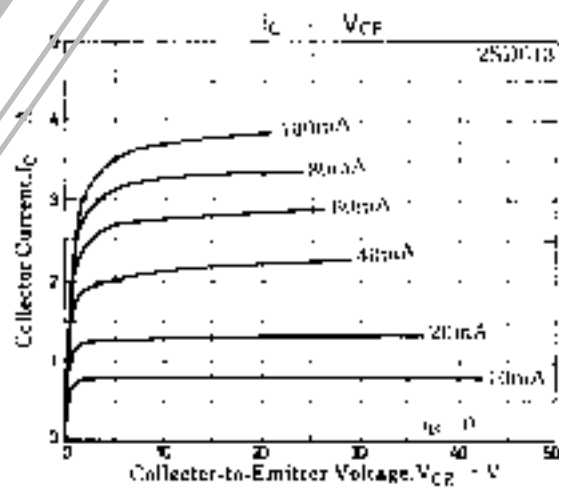
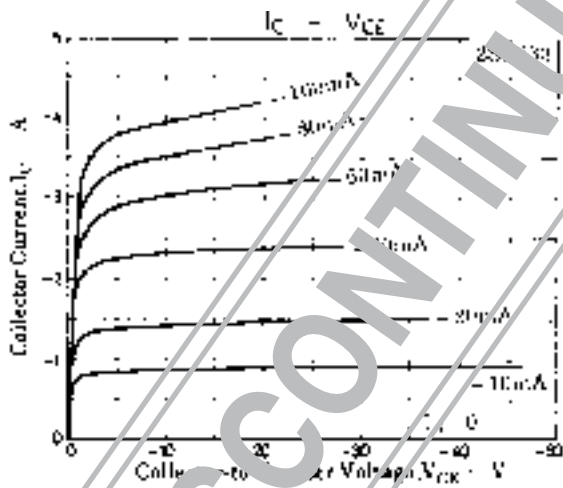
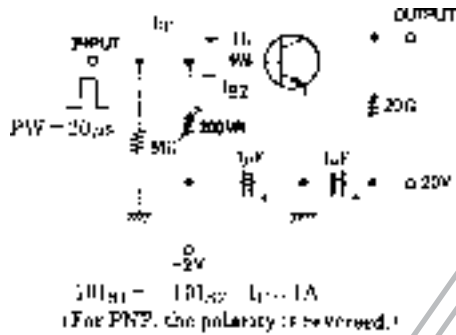
2SB633/2SD613

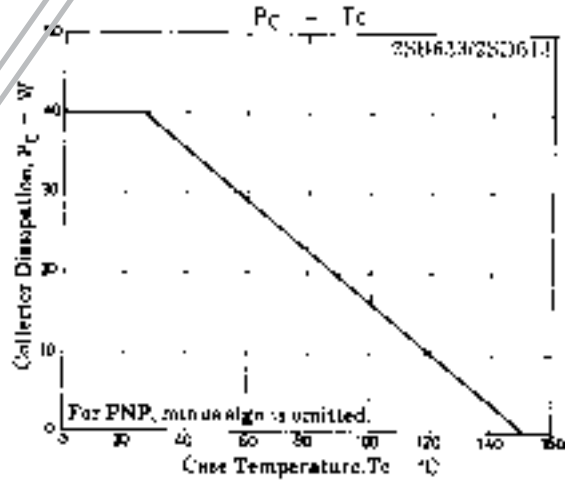
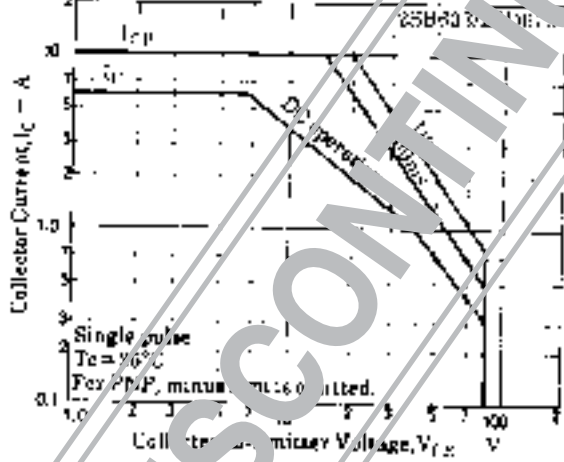
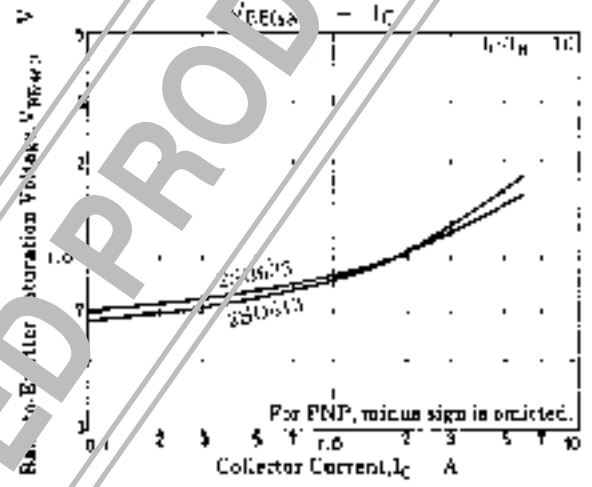
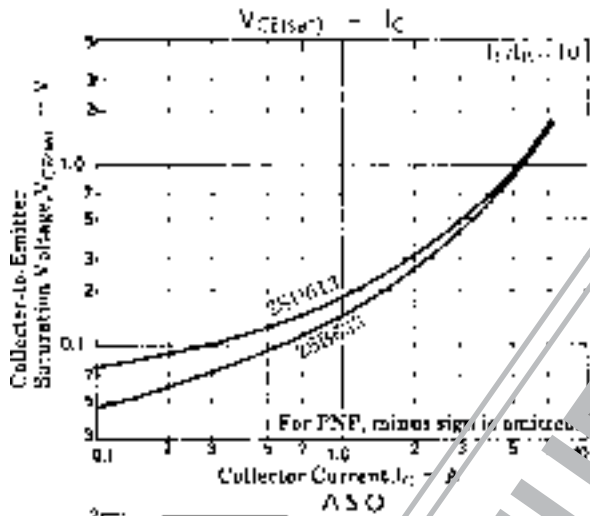
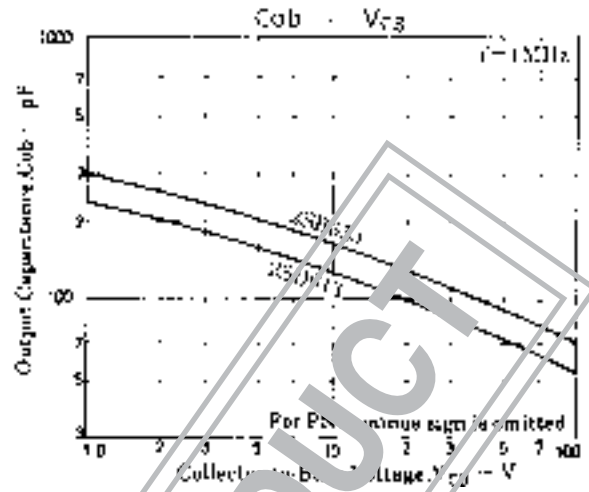
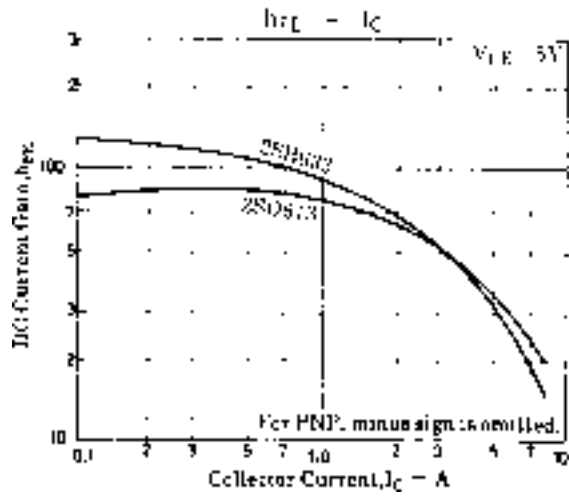
| Parameter | Symbol | Conditions | Ratings | | | Unit |
|--|---------------|----------------------------------|---------|--------|-----|---------|
| | | | min | typ | max | |
| Collector-to-Base Breakdown Voltage | $V_{(BR)CBO}$ | $I_C = (-)5mA, I_E = 0$ | (-)100 | | | V |
| Collector-to-Emitter Breakdown Voltage | $V_{(BR)CEO}$ | $I_C = (-)5mA, R_{BE} = \infty$ | (-)85 | | | V |
| | $V_{(BR)CEO}$ | $I_C = (-)50mA, R_{BE} = \infty$ | (-)85 | | | V |
| Emitter-to-Base Breakdown Voltage | $V_{(BR)EBO}$ | $I_E = (-)5mA, I_C = 0$ | (-)6 | | | V |
| Turn-ON Time | t_{on} | See specified Test Circuit | | (0.16) | | μs |
| Fall Time | t_f | See specified Test Circuit | | 0.28 | | μs |
| | | | | (0.33) | | μs |
| Storage Time | t_{stg} | See specified Test Circuit | | 0.50 | | μs |
| | | | | (15) | | μs |
| | | | | 3.60 | | μs |

* : The 2SB633/2SD613 are classified by $1A h_{FE}$ as follows :

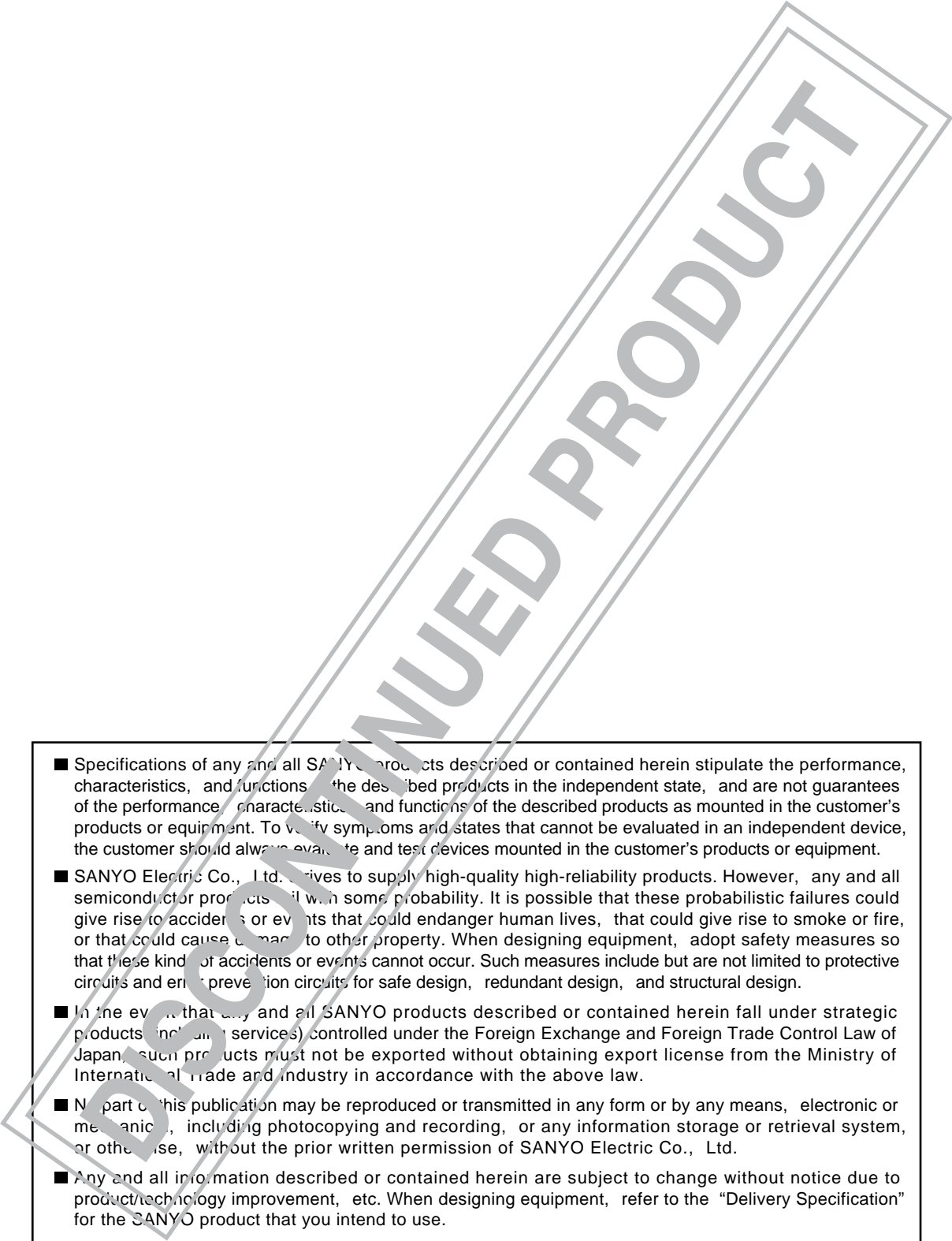
| | | | | | | | | | | | |
|----|---|----|----|---|-----|-----|---|-----|-----|---|-----|
| 40 | C | 80 | 60 | D | 120 | 100 | E | 200 | 160 | F | 320 |
|----|---|----|----|---|-----|-----|---|-----|-----|---|-----|

Switching Time Test Circuit





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- 
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