



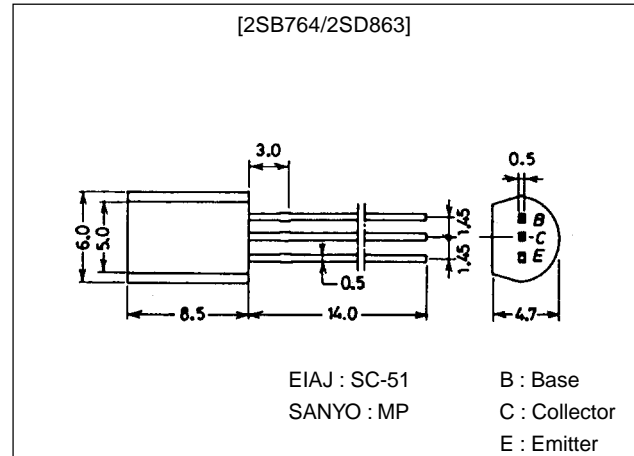
2SB764/2SD863

Voltage Regulator, Relay Lamp Driver Electrical Equipment Applications

Package Dimensions

unit:mm

2006A



() : 2SB764

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_{CEO} | | (-)-50 | V |
| Emitter-to-Base Voltage | V_{EBO} | | (-)-5 | V |
| Collector Current | I_C | | (-)-1 | A |
| Collector Current (Pulse) | I_{CP} | | (-)-2 | A |
| Collector Dissipation | P_C | | 0.9 | 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_{CBO} | $V_{CB} = (-)50V, I_E = 0$ | | | (-)-1 | μA |
| Emitter Cutoff Current | I_{EBO} | $V_{EB} = (-)4V, I_C = 0$ | | | (-)-1 | μA |
| DC Current Gain | h_{FE1} | $V_{CE} = (-)2V, I_C = (-)50mA$ | 60* | | 320* | |
| | h_{FE2} | $V_{CE} = (-)2V, I_C = (-)1A$ | 30 | | | |
| Gain-Bandwidth Product | f_T | $V_{CE} = (-)10V, I_C = (-)50mA$ | | 150 | | MHz |
| Output Capacitance | C_{ob} | $V_{CB} = (-)10V, f = 1MHz$ | | (20) | | pF |
| | | | | 12 | | pF |
| Collector-to-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C = (-)500mA, I_B = (-)50mA$ | | (-)-0.2 | (-)-0.7 | V |
| | | | | 0.15 | 0.5 | V |
| Base-to-Emitter Saturation Voltage | $V_{BE(sat)}$ | $I_C = (-)500mA, I_B = (-)50mA$ | | (-)-0.85 | (-)-1.2 | V |

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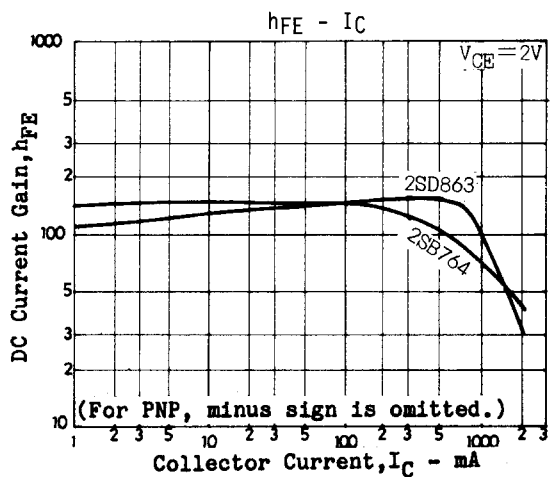
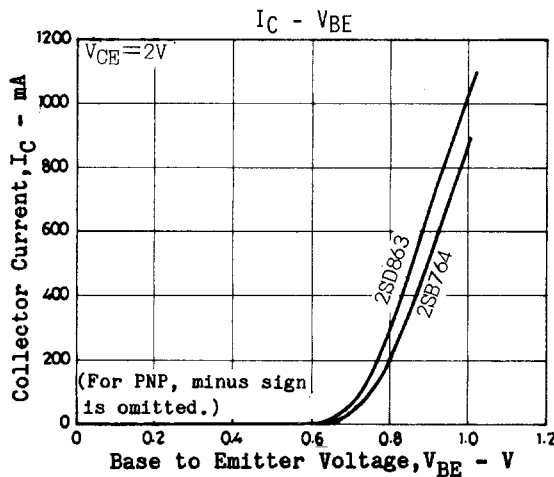
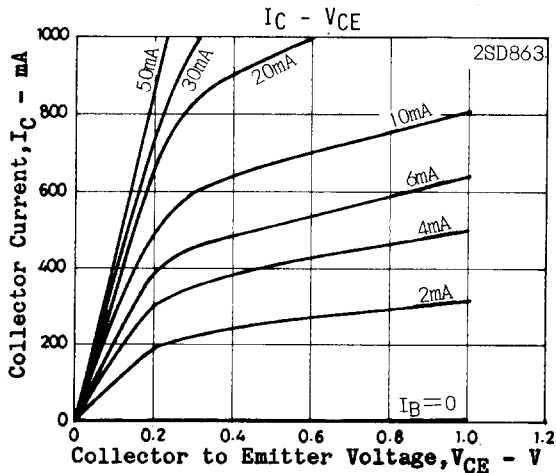
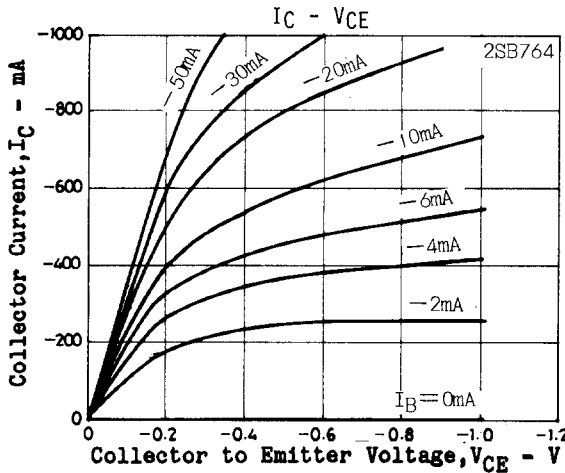
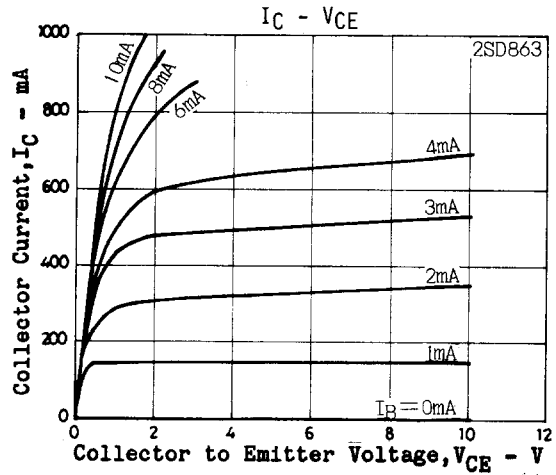
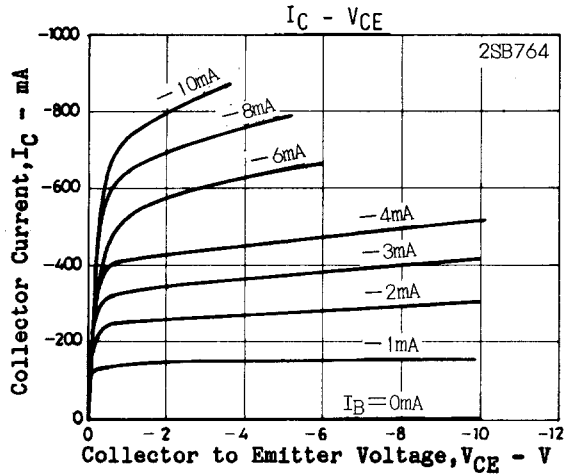
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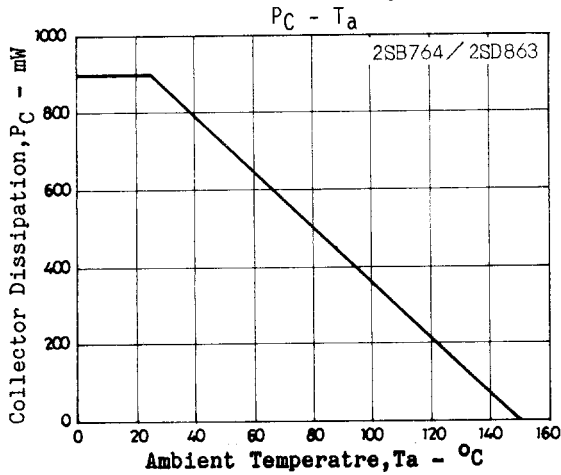
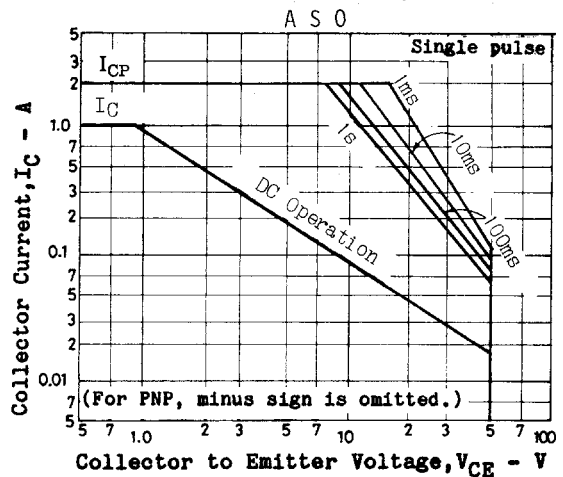
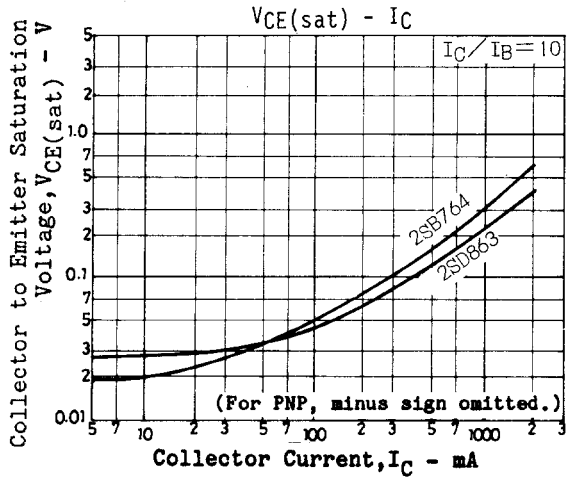
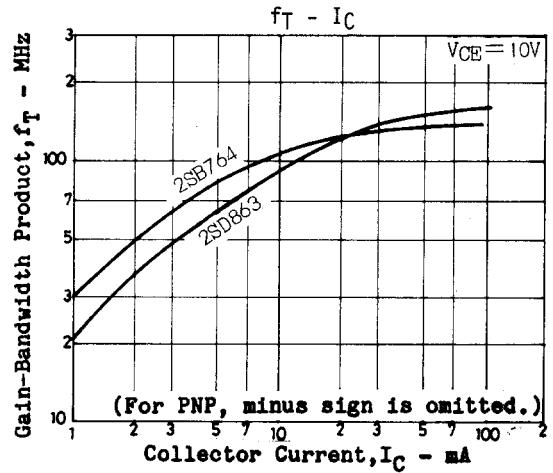
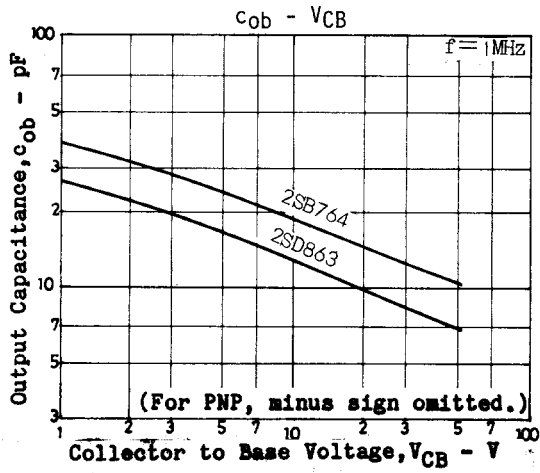
| Parameter | Symbol | Conditions | Ratings | | | Unit |
|--|---------------|---------------------------------|---------|-----|-----|------|
| | | | min | typ | max | |
| Collector-to-Base Breakdown Voltage | $V_{(BR)CBO}$ | $I_C = (-)10\mu A, I_E = 0$ | (-)60 | | | V |
| Collector-to-Emitter Breakdown Voltage | $V_{(BR)CEO}$ | $I_C = (-)1mA, R_{BE} = \infty$ | (-)50 | | | V |
| Emitter-to-Base Breakdown Voltage | $V_{(BR)EBO}$ | $I_E = (-)10\mu A, I_C = 0$ | (-)5 | | | V |

* : The SB764/2SD863 are classified by 50mA h_{FE} as follows :

| | | | | | | | | |
|----|---|-----|-----|---|-----|-----|---|-----|
| 60 | D | 120 | 100 | E | 200 | 160 | F | 320 |
|----|---|-----|-----|---|-----|-----|---|-----|



2SB764/2SD863



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