



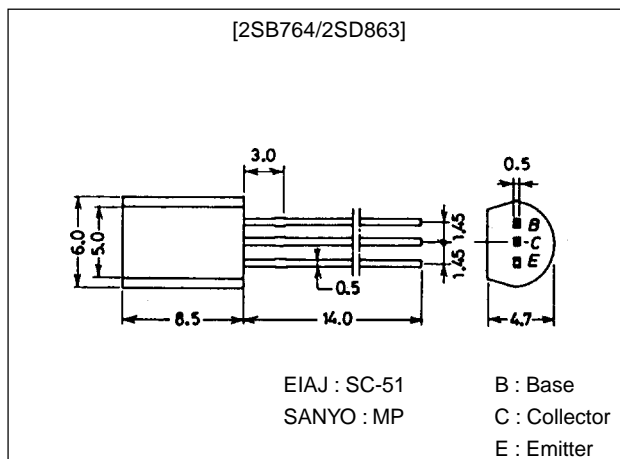
## 2SB764/2SD863

### Voltage Regulator, Relay Lamp Driver Electrical Equipment Applications

#### Package Dimensions

unit:mm

2006A



() : 2SB764

#### Specifications

##### Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	$V_{CBO}$		(-)-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	$^\circ\text{C}$
Storage Temperature	$T_{stg}$		-55 to +150	$^\circ\text{C}$

##### Electrical Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	$I_{CBO}$	$V_{CB}=(-)50\text{V}, I_E=0$			(-)-1	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=(-)4\text{V}, I_C=0$			(-)-1	$\mu\text{A}$
DC Current Gain	$h_{FE1}$	$V_{CE}=(-)2\text{V}, I_C=(-)50\text{mA}$	60*		320*	
	$h_{FE2}$	$V_{CE}=(-)2\text{V}, I_C=(-)1\text{A}$	30			
Gain-Bandwidth Product	$f_T$	$V_{CE}=(-)10\text{V}, I_C=(-)50\text{mA}$		150		MHz
Output Capacitance	$C_{ob}$	$V_{CB}=(-)10\text{V}, f=1\text{MHz}$		(20)		pF
				12		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)500\text{mA}, I_B=(-)50\text{mA}$		(-)-0.2	(-)-0.7	V
				0.15	0.5	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=(-)500\text{mA}, I_B=(-)50\text{mA}$		(-)-0.85	(-)-1.2	V

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

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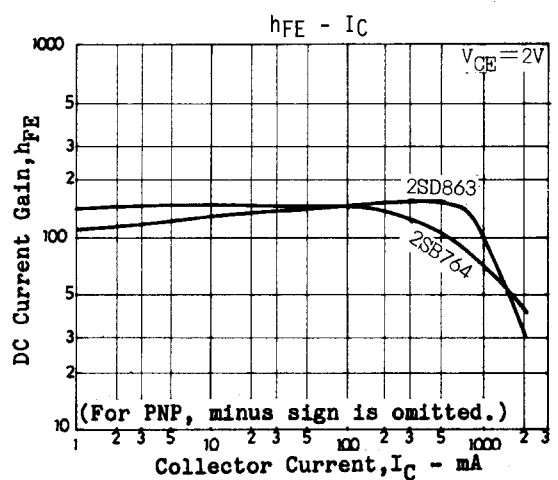
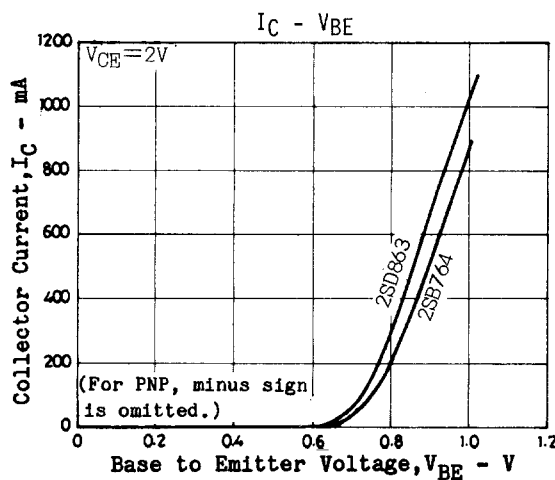
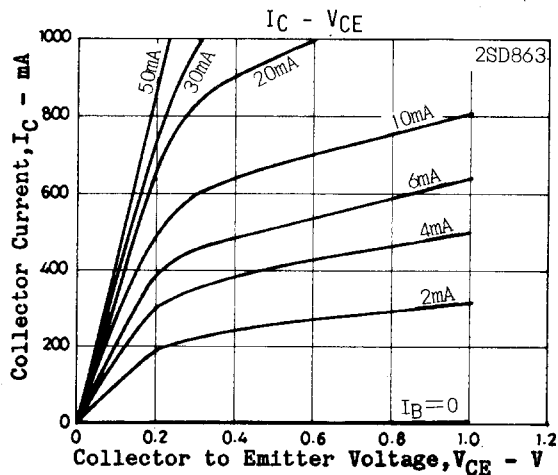
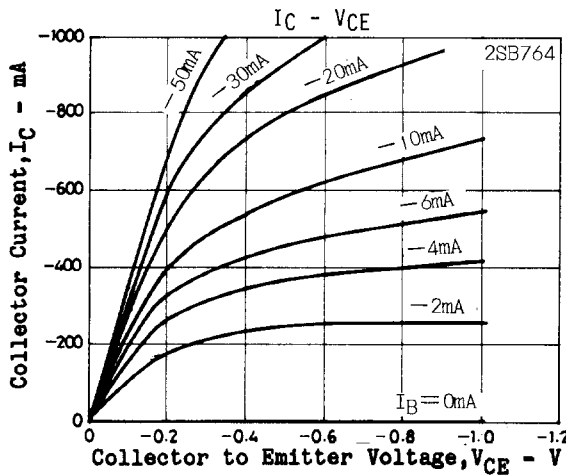
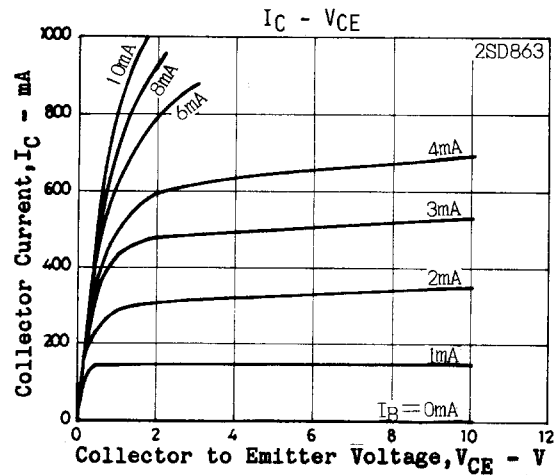
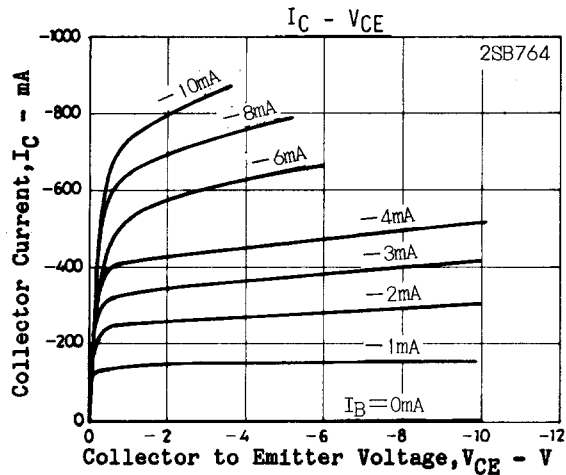
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# 2SB764/2SD863

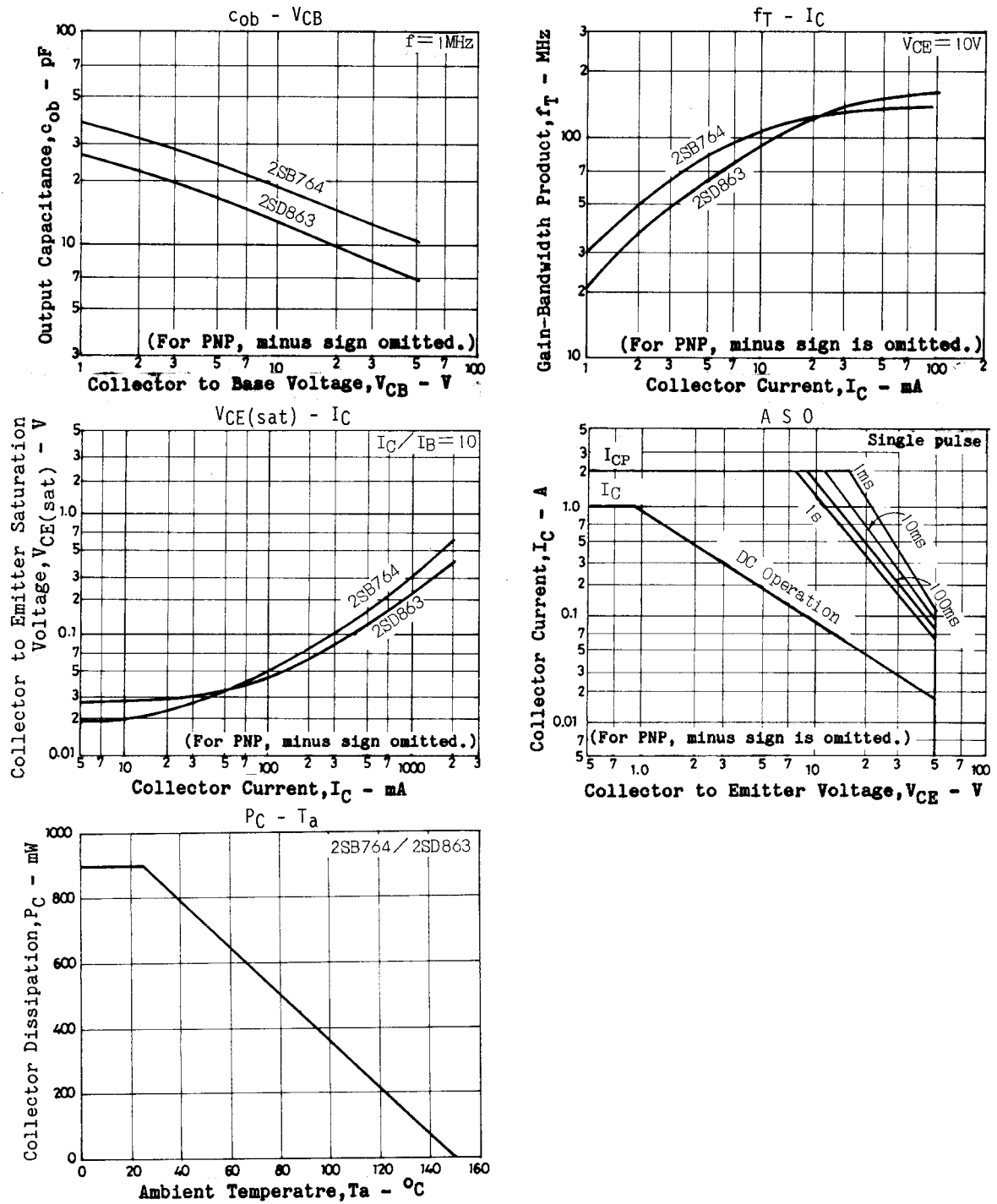
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=(-)10\mu A, I_E=0$	(-)60			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)1mA, R_{BE}=\infty$	(-)50			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=(-)10\mu A, I_C=0$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

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

60	D	120	100	E	200	160	F	320
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## 2SB764/2SD863



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