



## 2SB884/2SD1194

### Driver Applications

#### Applications

- Motor drivers, printer hammer drivers, relay drivers, voltage regulator control.

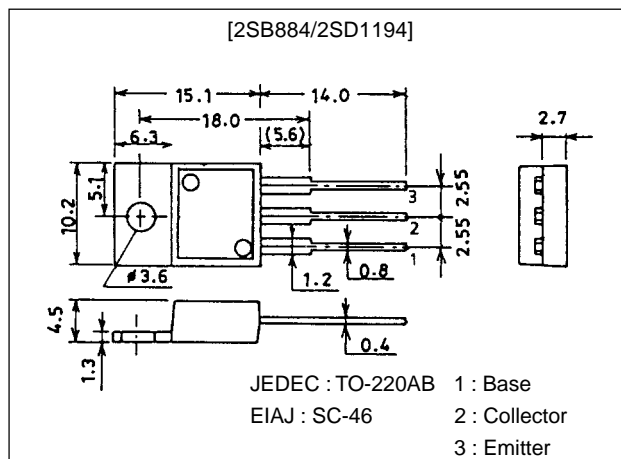
#### Features

- High DC current gain.
- High current capacity and wide ASO.
- Low saturation voltage.

#### Package Dimensions

unit:mm

2010C



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#### Specifications

##### Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	$V_{CBO}$		(-)110	V
Collector-to-Emitter Voltage	$V_{CEO}$		(-)100	V
Emitter-to-Base Voltage	$V_{EBO}$		(-)6	V
Collector Current	$I_C$		(-)3	A
Collector Current (Pulse)	$I_{CP}$		(-)5	A
Collector Dissipation	$P_C$		1.75	W
		$T_c=25^\circ\text{C}$	30	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	$I_{CBO}$	$V_{CB}=(-)80\text{V}, I_E=0$			(-)0.1	mA
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=(-)5\text{V}, I_C=0$			(-)3	mA
DC Current Gain	$h_{FE}$	$V_{CE}=(-)3\text{V}, I_C=(-)1.5\text{A}$	1500	4000		
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)1.5\text{A}, I_B=(-)3\text{mA}$		0.9	(-)1.5	V
				(-1.0)		V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=(-)1.5\text{A}, I_B=(-)3\text{mA}$			(-)2.0	V
Gain-Bandwidth Product	$f_T$	$V_{CE}=(-)5\text{V}, I_C=(-)1.5\text{A}$		20		MHz

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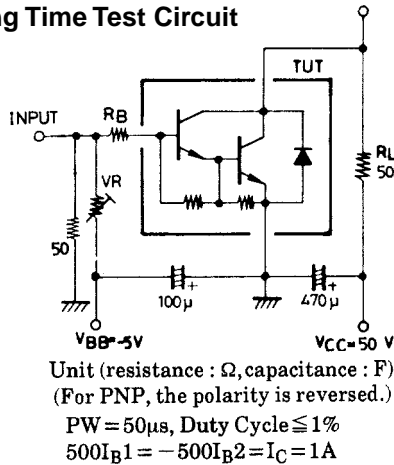
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91098HA (KT)/10996TS (KOTO) 8-4529/D251MH/4027KI/D222KI No.1018-1/4

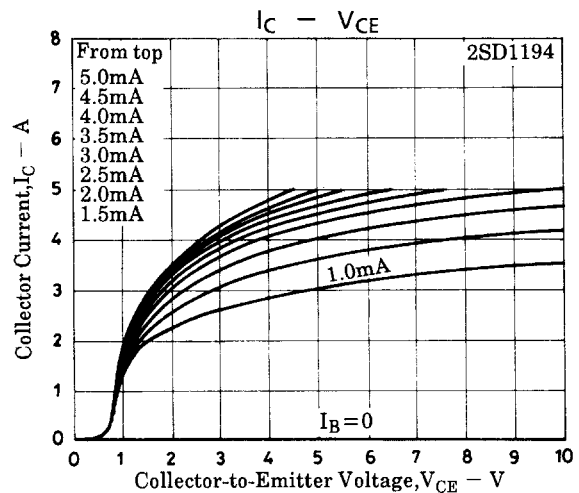
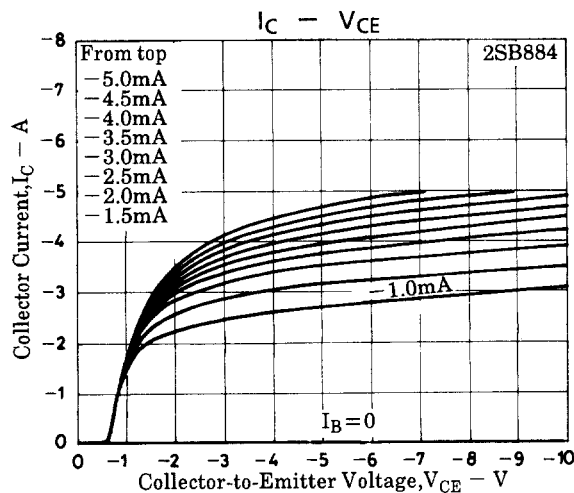
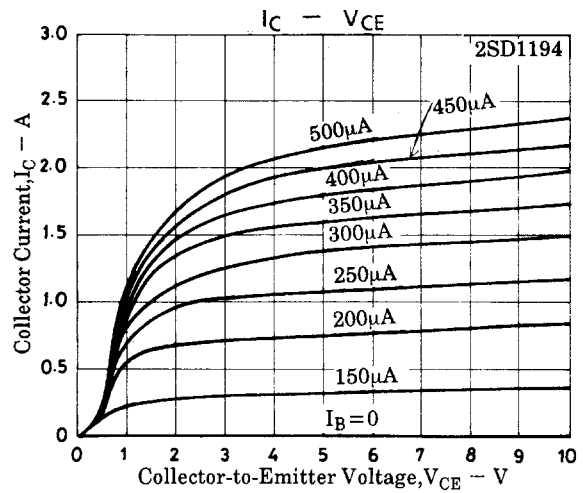
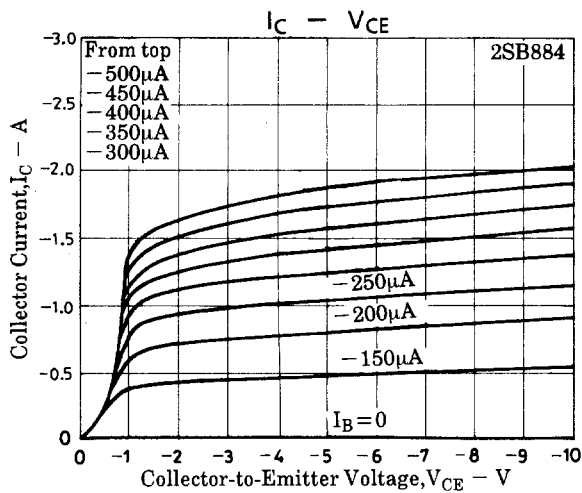
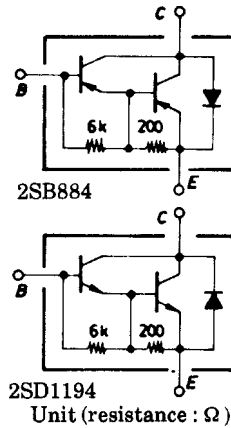
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=(-)5mA, I_E=0$	(-)110			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)50mA, R_{BE}=\infty$	(-)100			V
Turn-ON Time	$t_{on}$	See specified Test Circuit		(0.8)		$\mu s$
Storage Time	$t_{stg}$	See specified Test Circuit		0.7		$\mu s$
				(2.4)		$\mu s$
Fall Time	$t_f$	See specified Test Circuit		5.0		$\mu s$
				(1.2)		$\mu s$
				1.2		$\mu s$

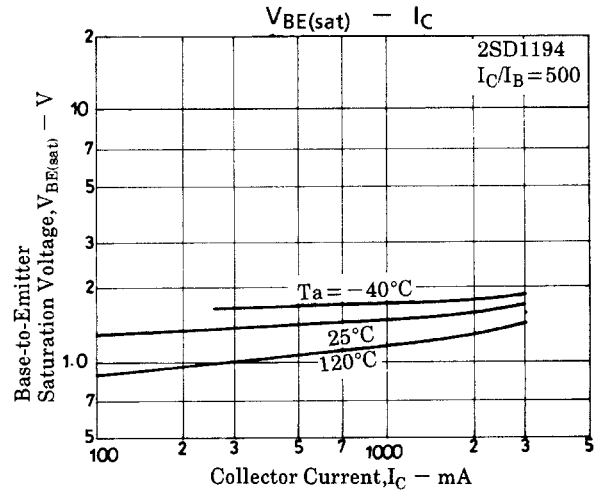
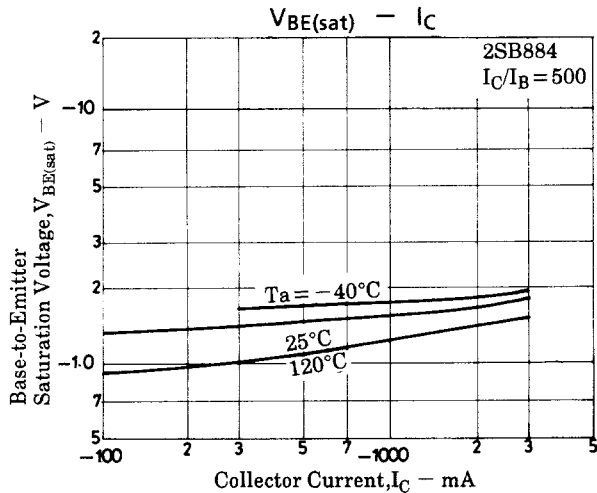
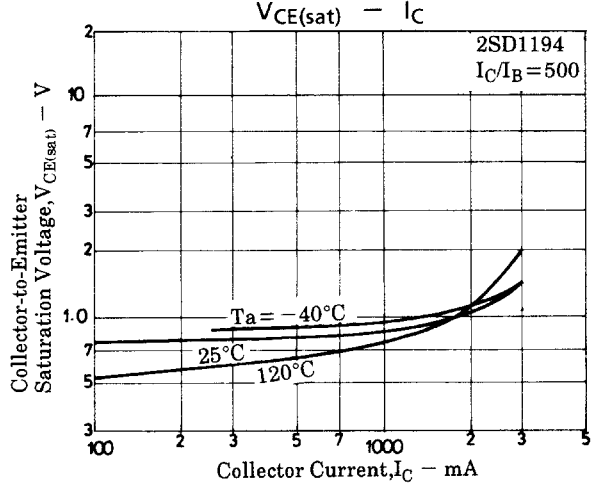
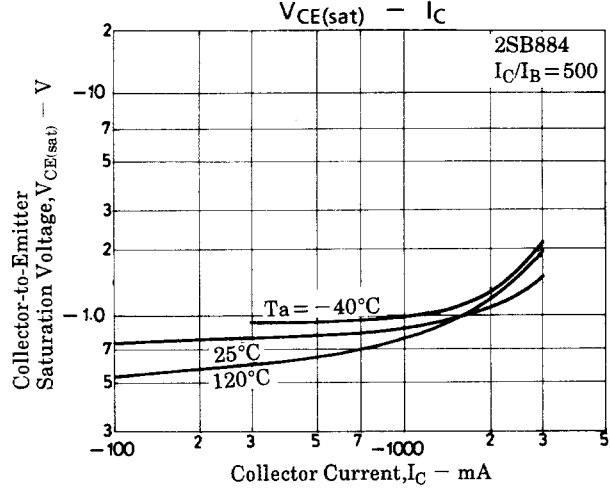
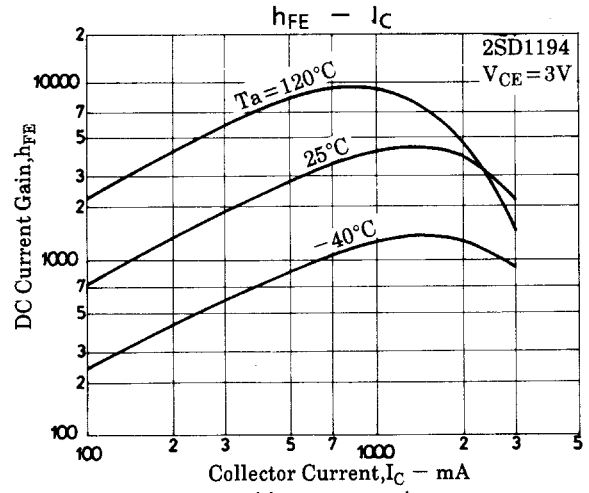
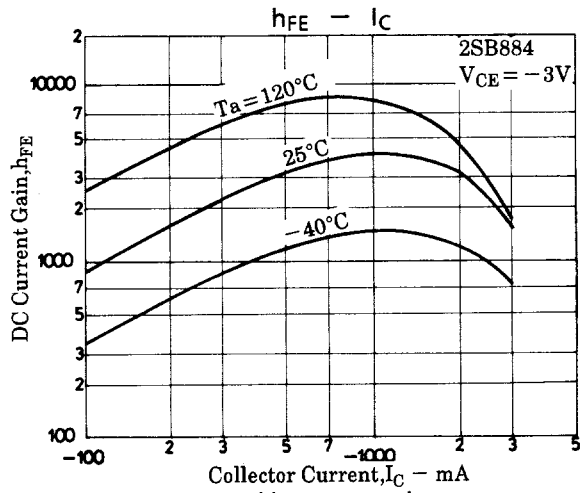
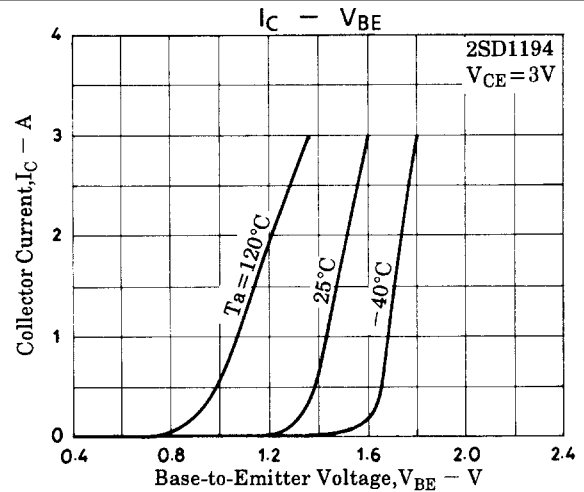
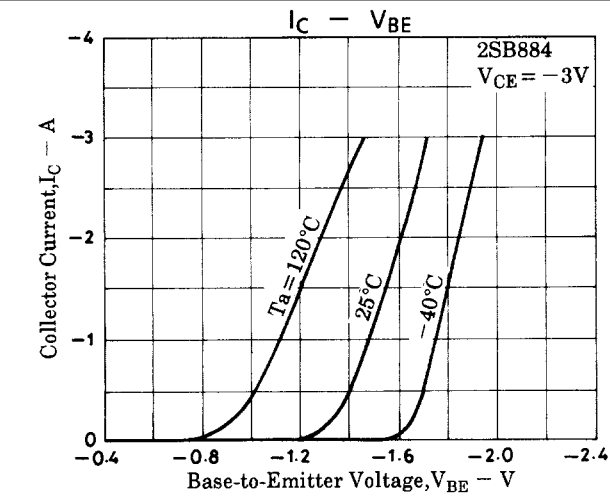
## Switching Time Test Circuit

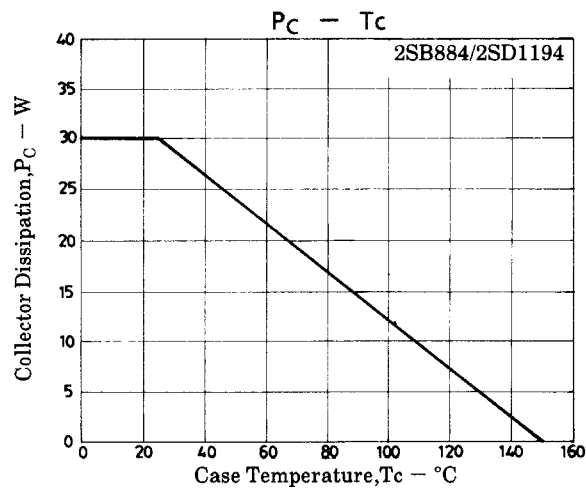
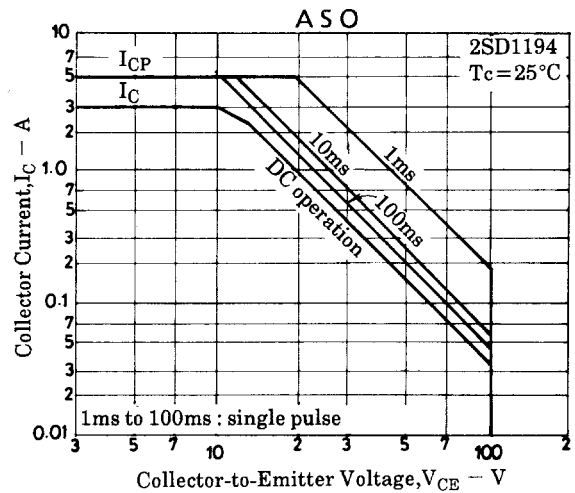
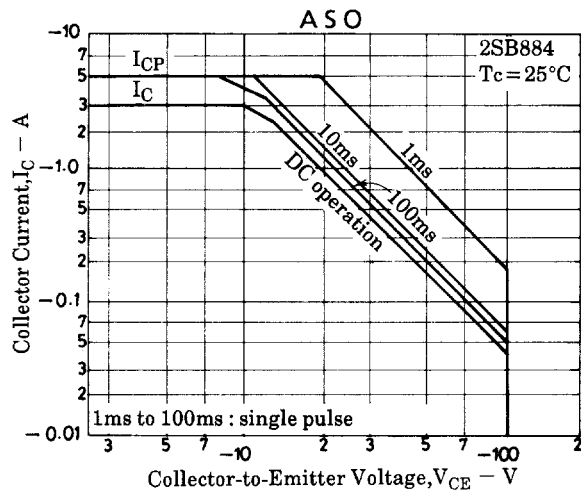


## Electrical Connection



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