



## 2SB1510/2SD2284

### 60V/3A Driver Applications

#### Applications

- Motor drivers, hammer drivers, relay drivers.

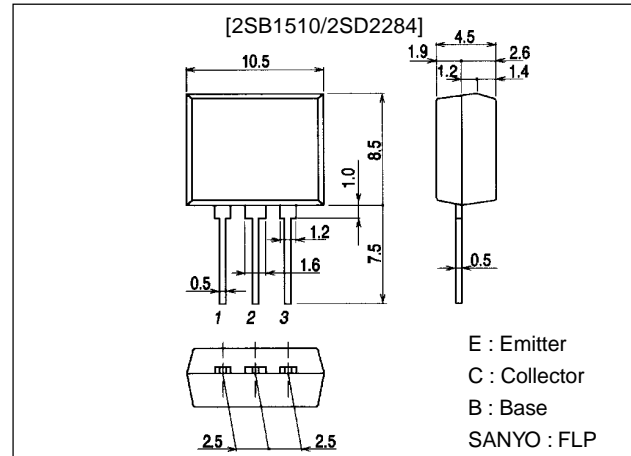
#### Features

- High DC current gain.
- Good dependence of DC current gain.

#### Package Dimensions

unit:mm

2084



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#### Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	$V_{CBO}$		(-80)	V
Collector-to-Emitter Voltage	$V_{CEO}$		(-60)	V
Emitter-to-Base Voltage	$V_{EBO}$		(-6)	V
Collector Current	$I_C$		(-3)	A
Collector Current (Pulse)	$I_{CP}$		(-6)	A
Collector Dissipation	$P_C$		1.5	W
Junction Temperature	$T_J$		150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$		-55 to +125	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = (-)60\text{V}, I_E = 0$			(-10)	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = (-)5\text{V}, I_C = 0$			(-2.5)	mA
DC Current Gain	$h_{FE1}$	$V_{CE} = (-)2\text{V}, I_C = (-)1\text{A}$	2000			
	$h_{FE2}$	$V_{CE} = (-)2\text{V}, I_C = (-)2\text{A}$	1000			
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = (-)2\text{A}, I_B = (-)4\text{mA}$			(-1.5)	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = (-)2\text{A}, I_B = (-)4\text{mA}$			(-2.0)	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = (-)1\text{mA}, I_E = 0$	(-80)			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = (-)10\text{mA}, R_{BE} = \infty$	(-60)			V

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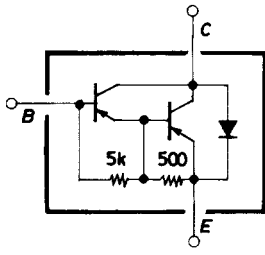
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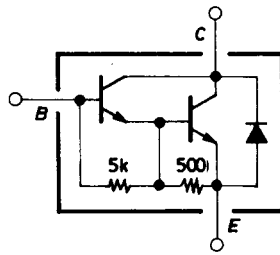
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## Electrical Connection

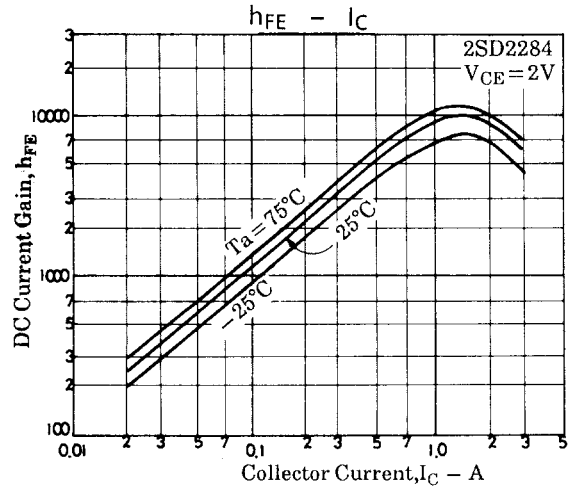
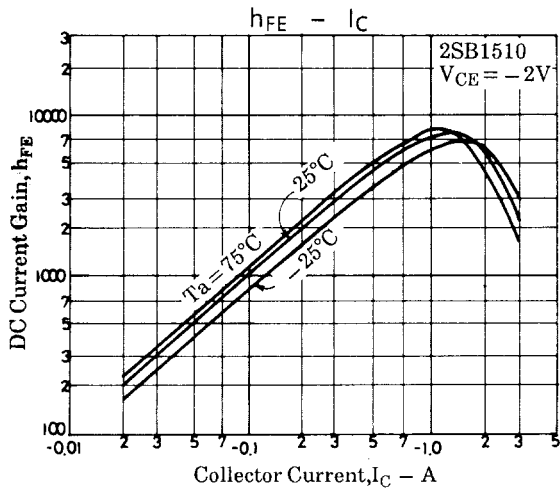
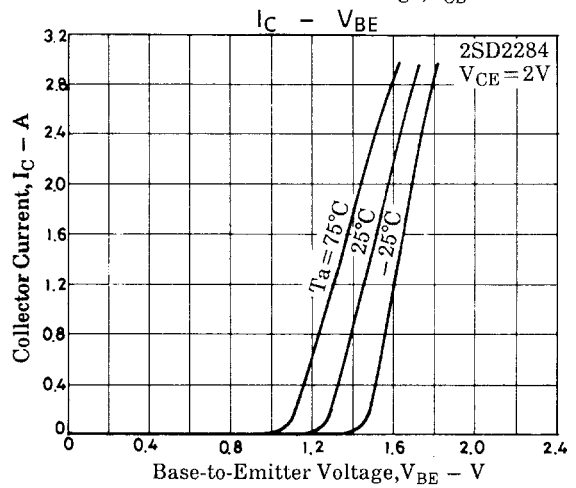
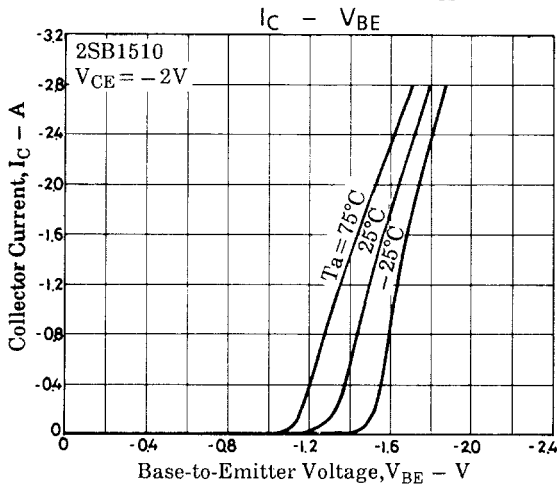
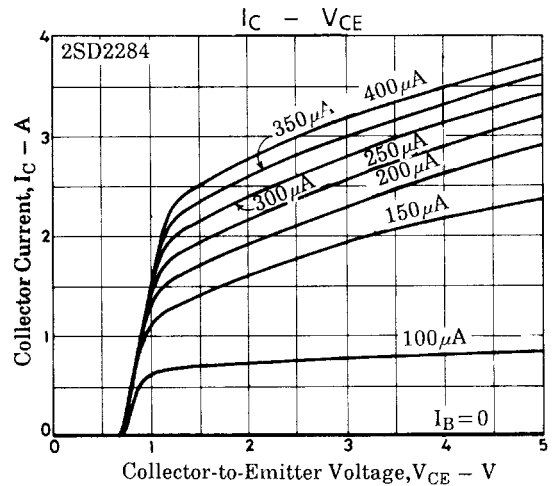
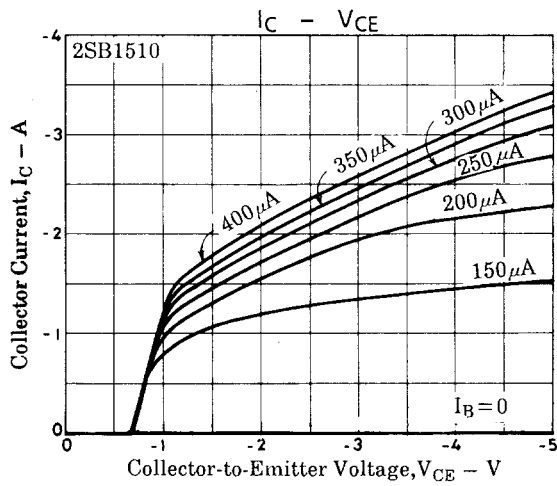


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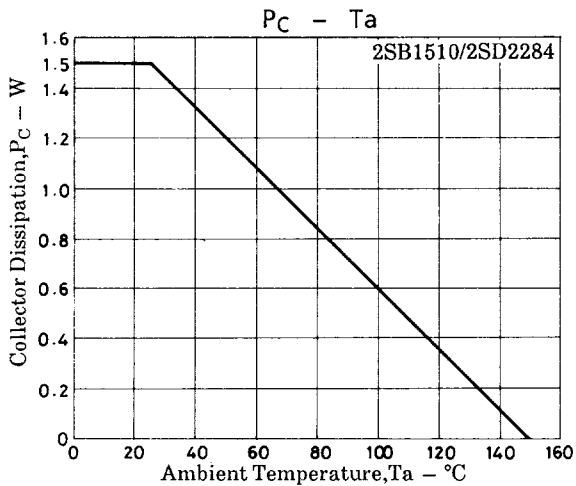
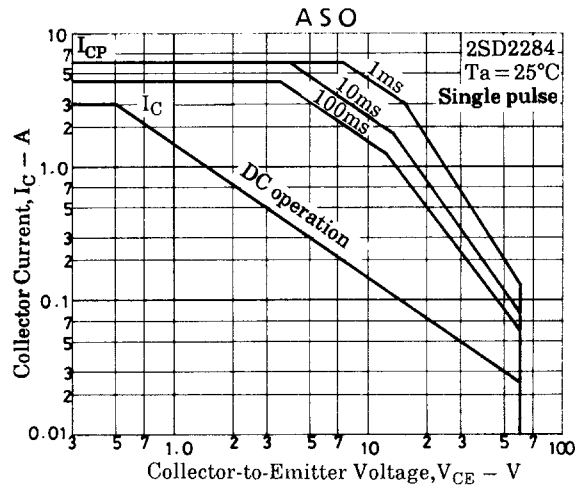
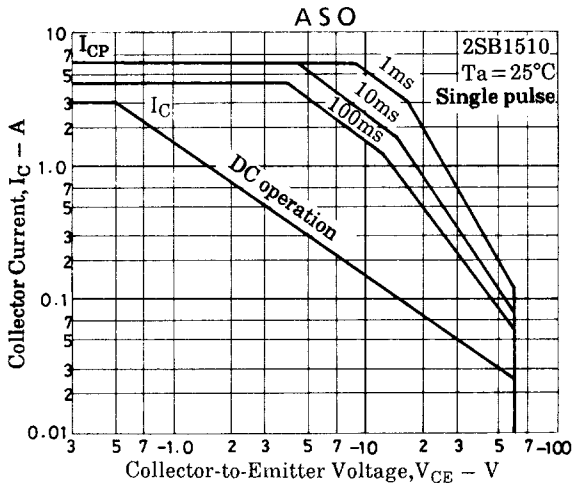
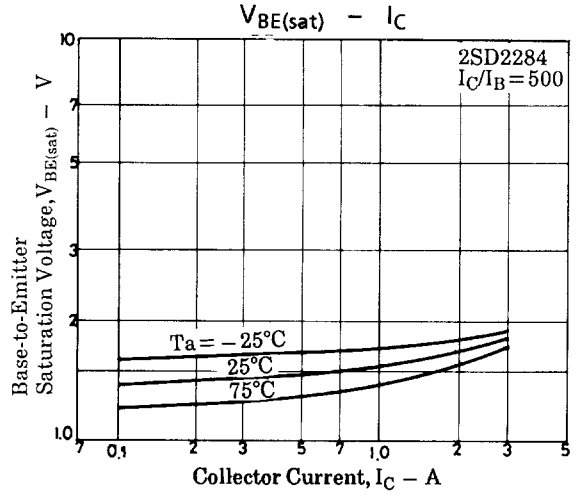
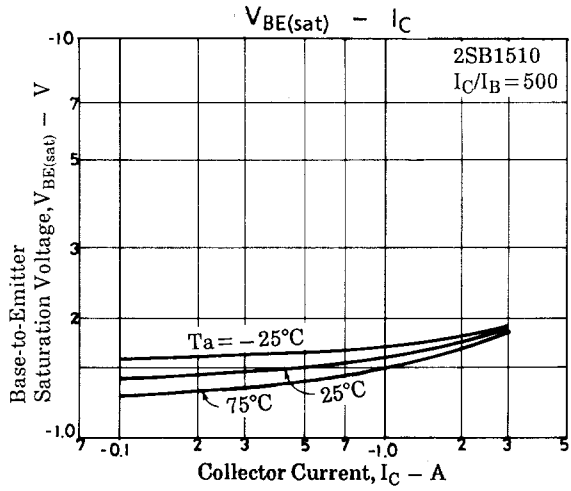
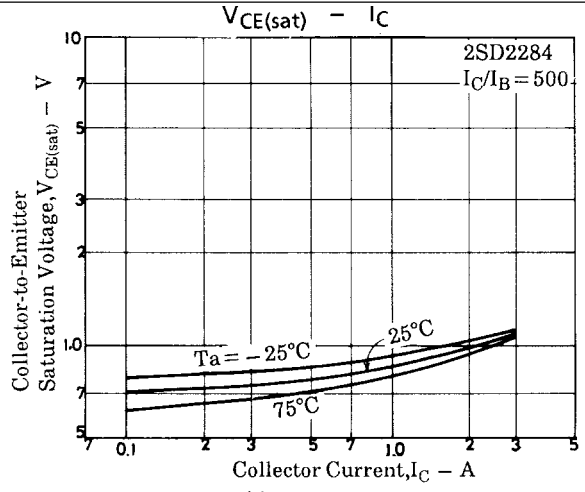
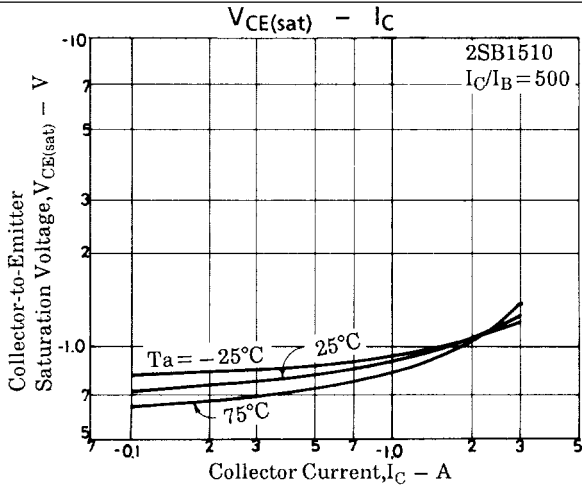


2SD2284

Unit (resistance :  $\Omega$ )



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