



# 2SB1232/2SD1842

## 100V/40A Switching Applications

### Applications

- Motor drivers, relay drivers, converters, and other general high-current switching applications.

### Features

- Large current capacity and wide ASO.
- Low saturation voltage.

( ) : 2SB1232

### Specifications

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

Parameter	Symbol	Condition	Rating	Unit
Collector-to-Base Voltage	CBO		(V)110	
Collector-to-Emitter Voltage	CEO		(V)100	
Emitter-to-Base Voltage	EBO		(V)6	
Collector Current	C		(A)40	
Collector Current (Pulse)	CP		(A)65	
Base Current	B		(A)12	
Collector Dissipation	C		3W	
		Tc=25°C	1.5W	
Junction Temperature	T		150	°C
Storage Temperature	Tst		-55 to +150	°C

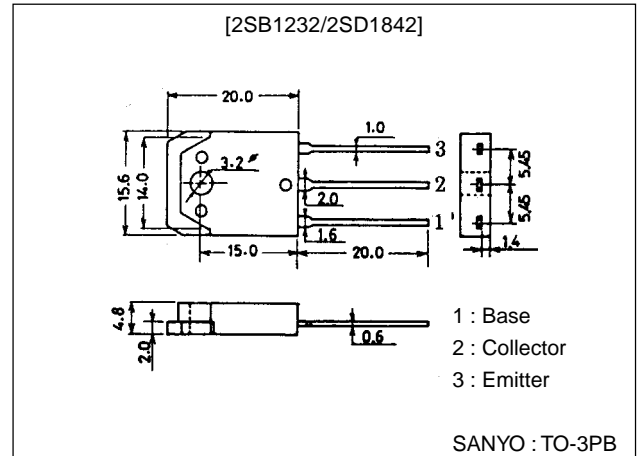
#### Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Condition	Ratings			Unit
			mμ	μ	ma	
Collector Cutoff Current	CBO	V <sub>CB</sub> =(-)100V, I <sub>E</sub> =0			(A)0.	m
Emitter Cutoff Current	EBO	V <sub>EB</sub> =(-)5V, I <sub>C</sub> =0			(A)0.	m
DC Current Gain	h <sub>FE1V</sub>	CE=(-)2V, I <sub>C</sub> =(-)4A	50		140	
	h <sub>FE2V</sub>	CE=(-)2V, I <sub>C</sub> =0)16A	2			
Collector-to-Emitter Saturation Voltage	CE(sat)	I <sub>C</sub> =(-)16A, I <sub>B</sub> =β(-)1.6A			(V)0.	
Base-to-Emitter Saturation Voltage	BE(sat)	I <sub>C</sub> =(-)16A, I <sub>B</sub> =β(-)1.6A			(V)1.	

### Package Dimensions

unit:mm

2022A



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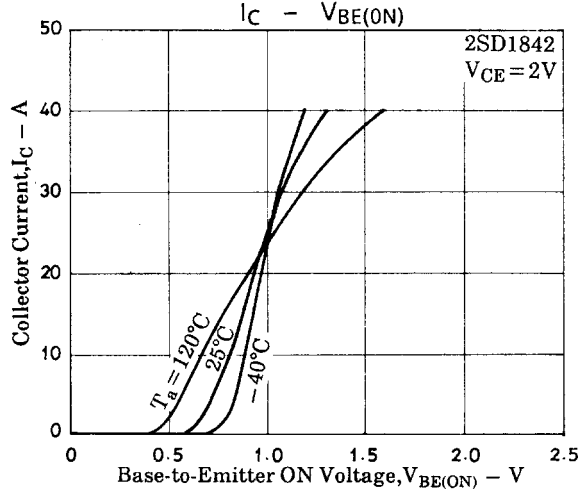
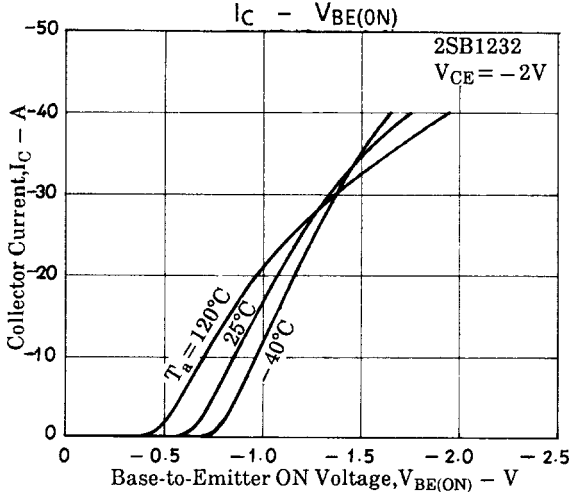
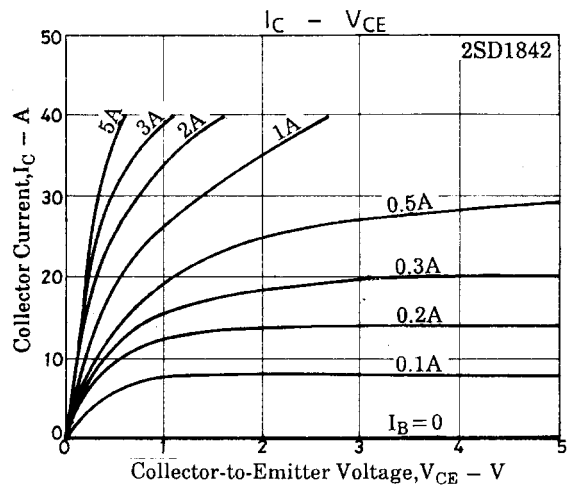
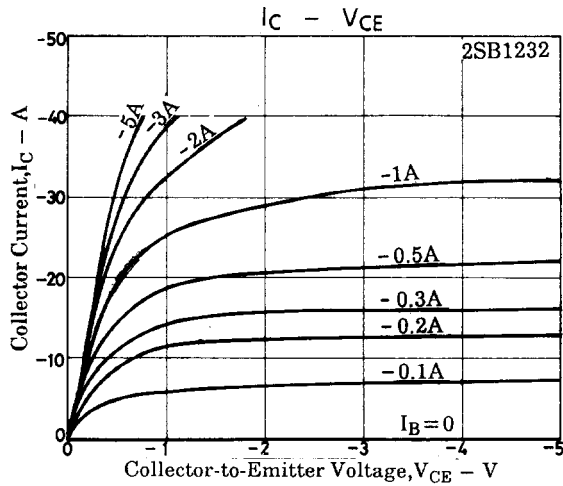
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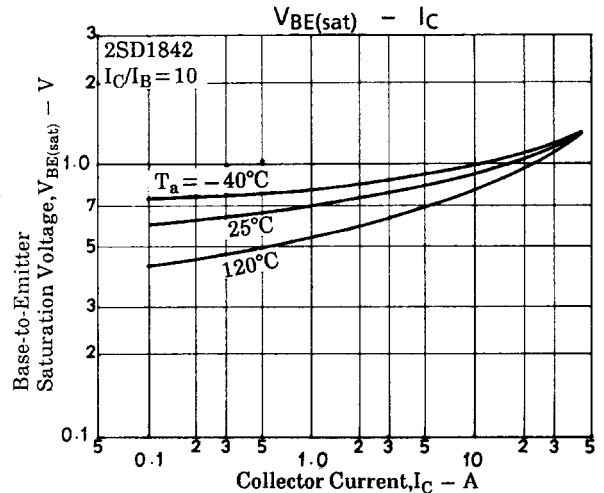
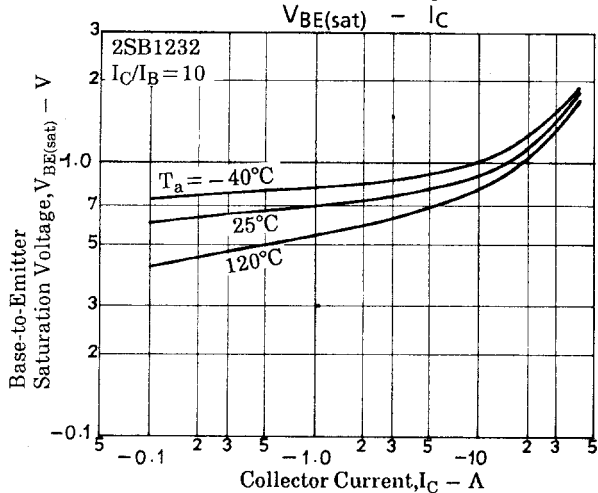
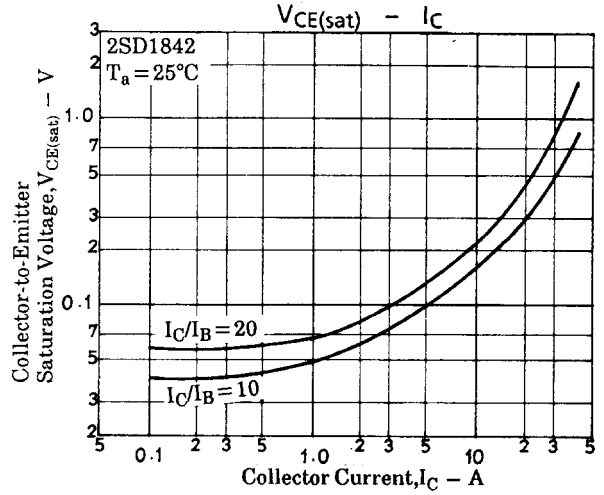
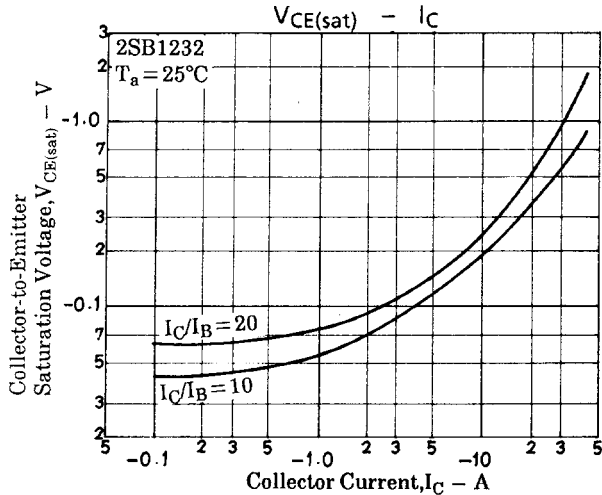
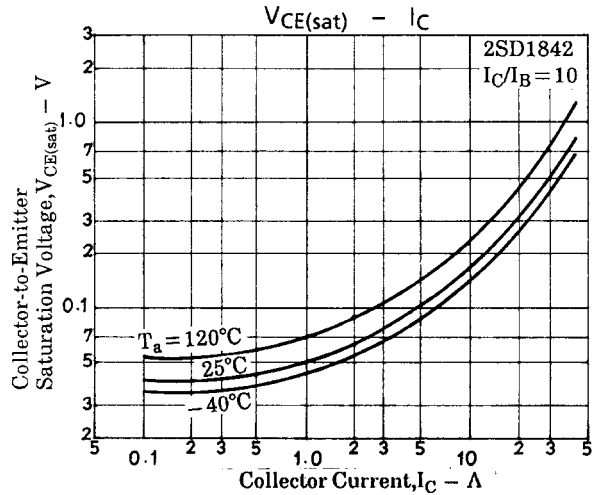
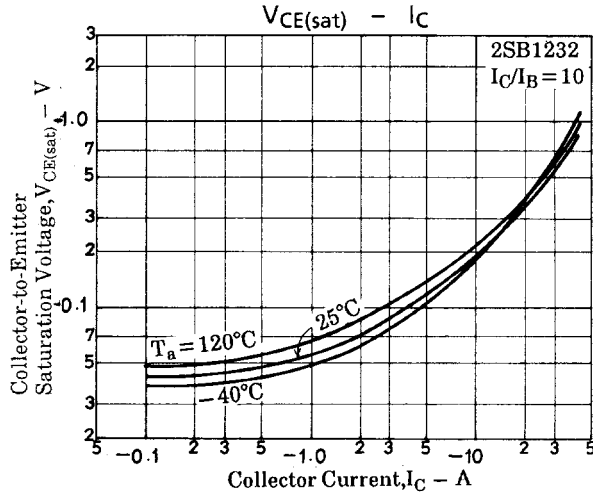
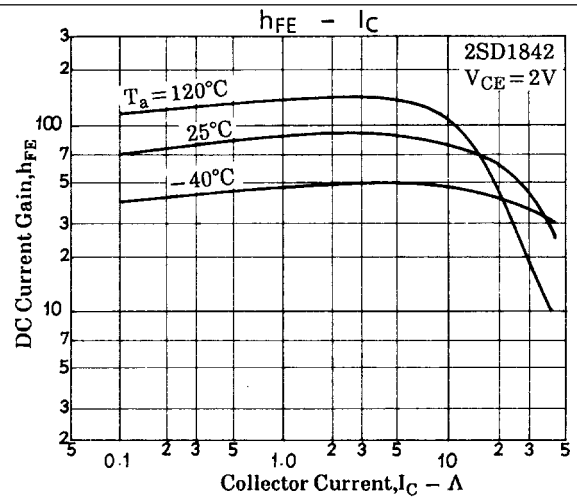
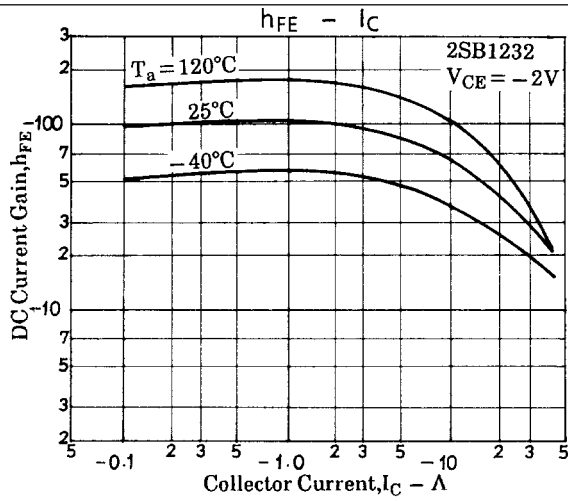
Parameter	Symbol	Conditions	Ratings			Unit
			mpn	ty	ma	
Collector-to-Base Breakdown Voltage	(BR)CBO	$I_C = (-)1\text{mA}, I_E = 0$	(V)11			
Collector-to-Emitter Breakdown Voltage	(BR)CEO	$I_C = (-)5\text{mA}, R_{BE} = \infty$	(V)100			
Emitter-to-Base Breakdown Voltage	(BR)EBO	$I_C = (-)1\text{mA}, I_C = 0$	(V)			

\* : For the  $h_{FE}I$  of the 2SB1232/2SD1842, specify at least two ranks in principle.

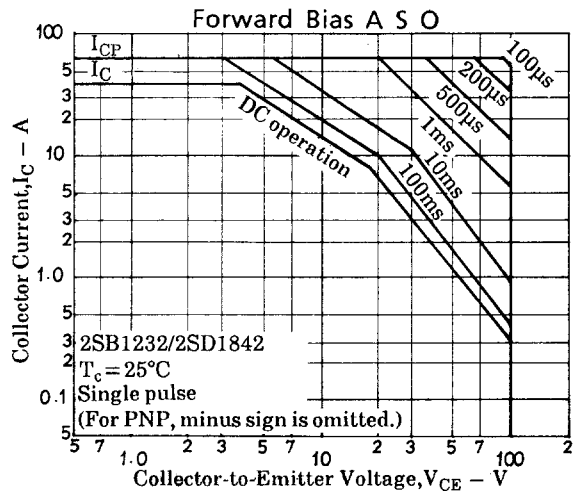
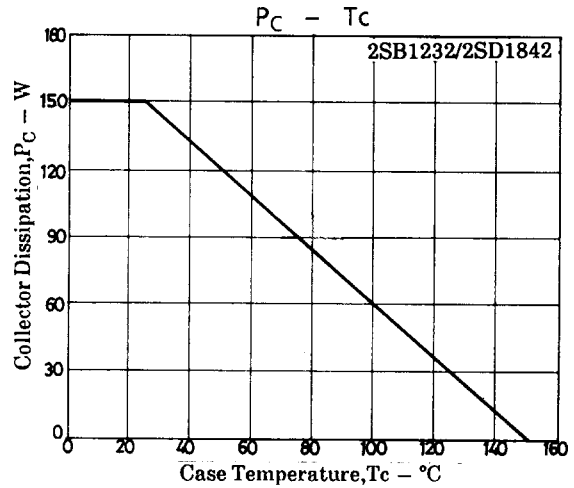
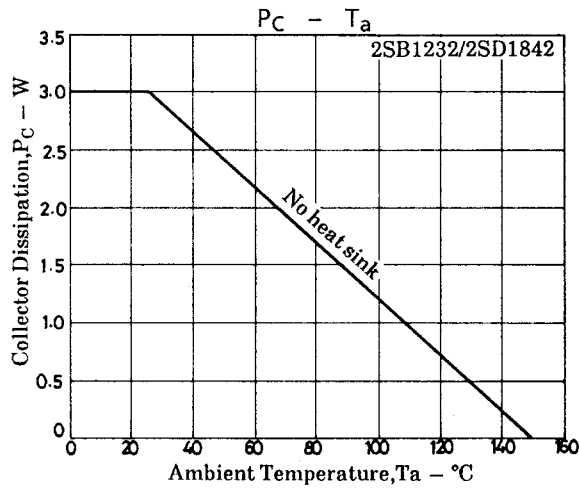
50	P	100	70	Q	14
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# 2SB1232/2SD1842



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