



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 $T_a = 25^\circ\text{C}$

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	
		$T_c=25^\circ\text{C}$	1.5W	
Junction Temperature	T		150	$^\circ\text{C}$
Storage Temperature	Tst		-55 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Condition	Ratings			Unit
			m μ n	t μ s	ma	
Collector Cutoff Current	CBO	$V_{CB} = (-)100\text{V}, I_E = 0$			(A)0.	m
Emitter Cutoff Current	EBO	$V_{EB} = (-)5\text{V}, I_C = 0$			(A)0.	m
DC Current Gain	h_{FE1V}	$C_E = (-)2\text{V}, I_C = (-)4\text{A}$	50		140	
	h_{FE2V}	$C_E = (-)2\text{V}, I_C = 0, I_B = 16\text{A}$	2			
Collector-to-Emitter Saturation Voltage	$C_E(\text{sat})$	$I_C = (-)16\text{A}, I_B = (-)1.6\text{A}$			(V)0.	
Base-to-Emitter Saturation Voltage	$B_E(\text{sat})$	$I_C = (-)16\text{A}, I_B = (-)1.6\text{A}$			(V)1.	

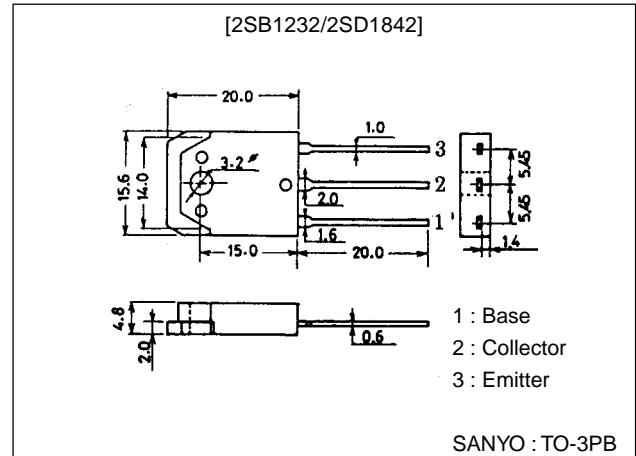
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Package Dimensions

unit:mm

2022A

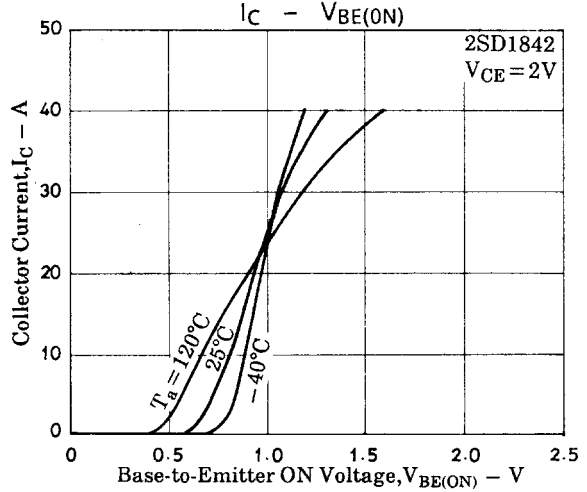
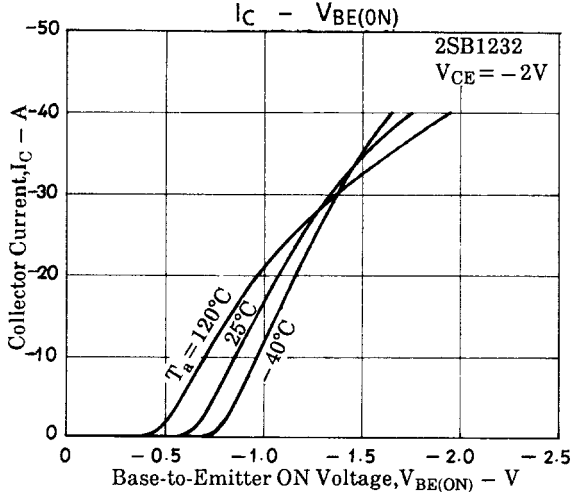
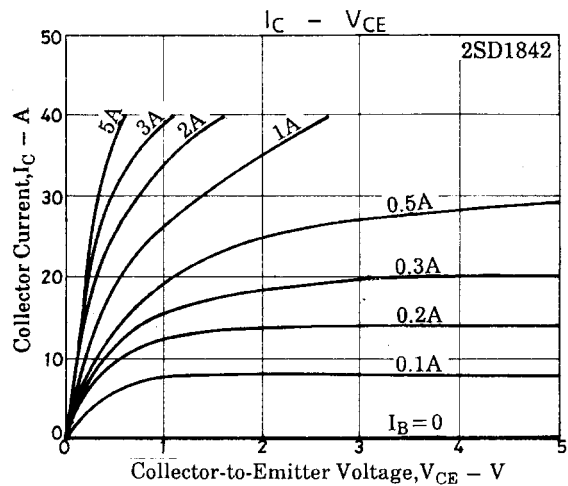
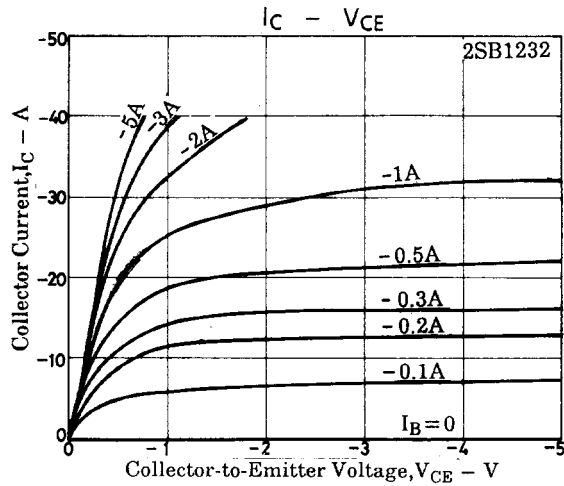


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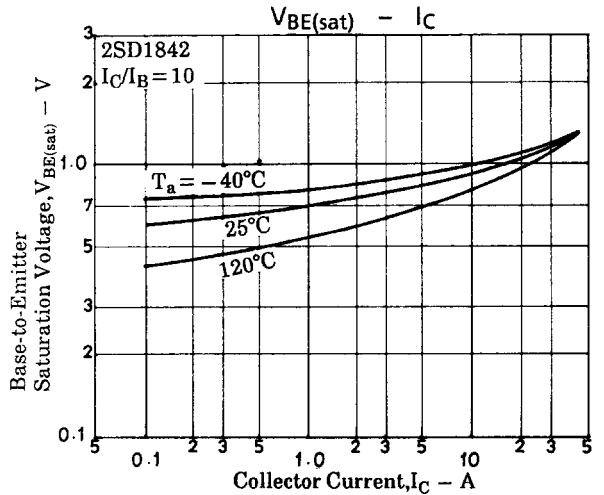
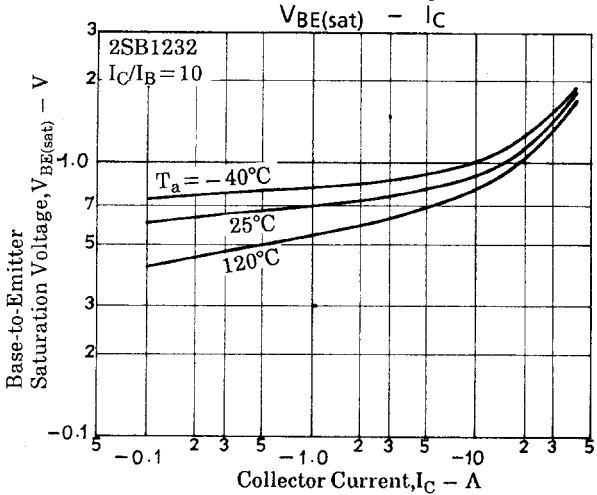
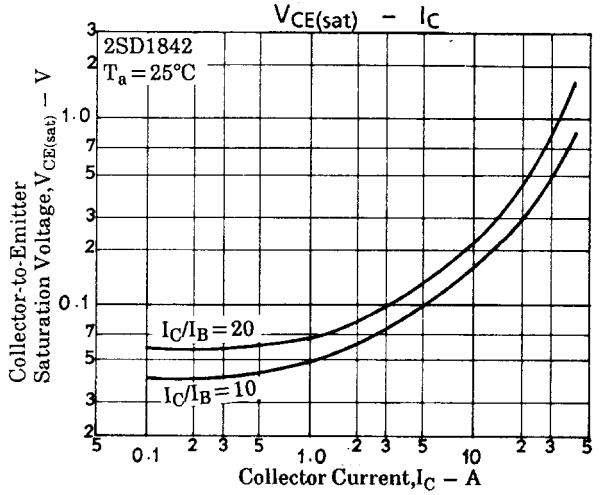
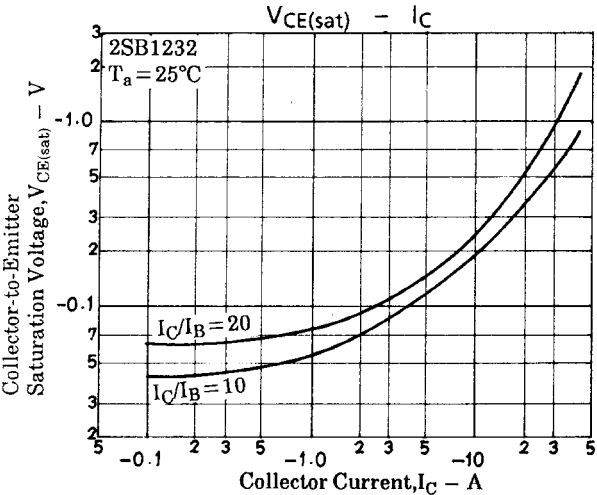
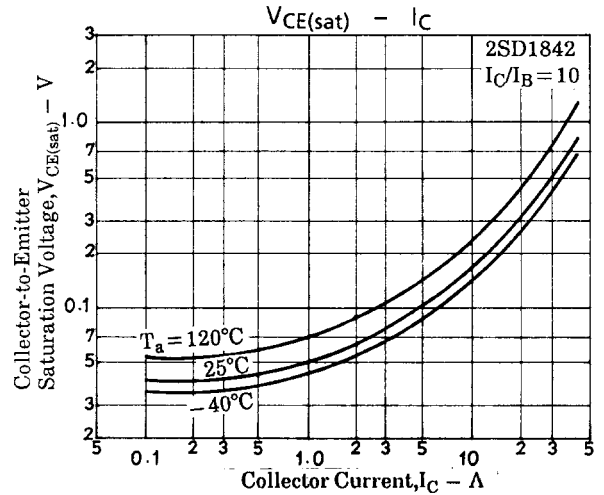
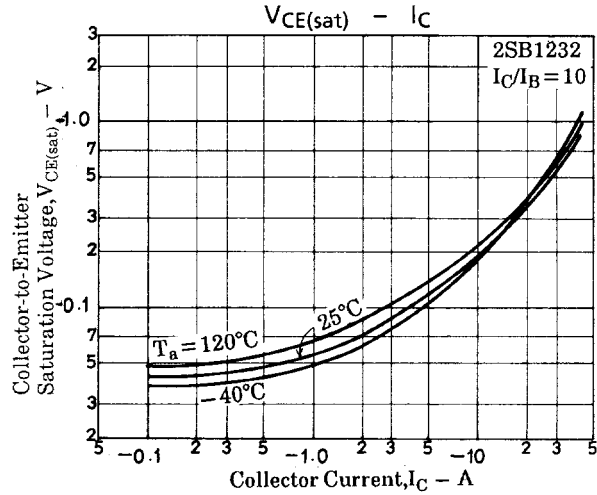
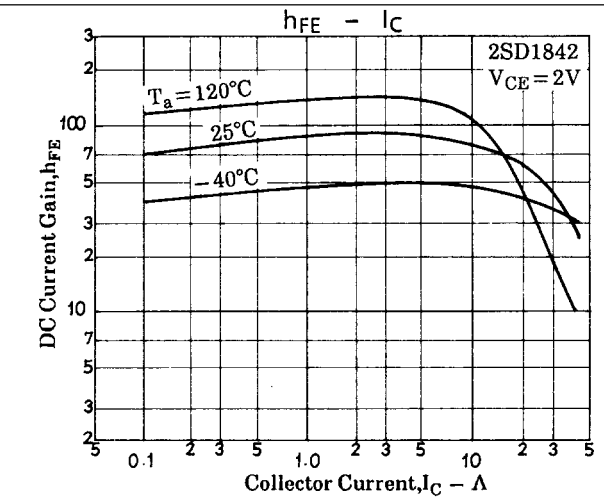
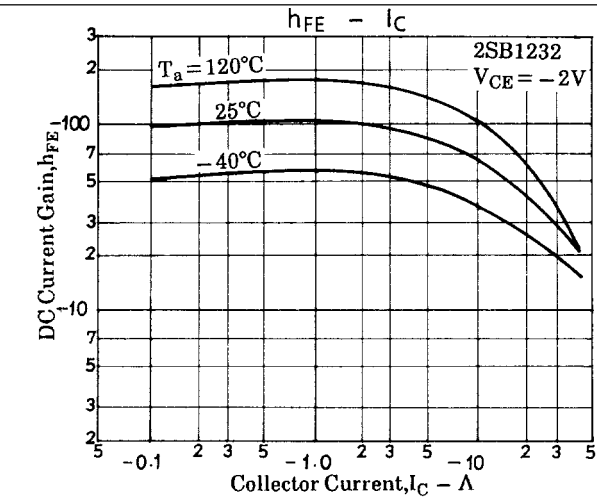
Parameter	Symbol	Conditions	Ratings			Unit
			mpn	ty	ma	
Collector-to-Base Breakdown Voltage	(BR)CBO	$I_C = (-)1\text{mA}, I_E = 0$	(V)11			
Collector-to-Emitter Breakdown Voltage	(BR)CEO	$I_C = (-)5\text{mA}, R_{BE} = \infty$	(V)100			
Emitter-to-Base Breakdown Voltage	(BR)EBO	$I_C = (-)1\text{mA},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

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

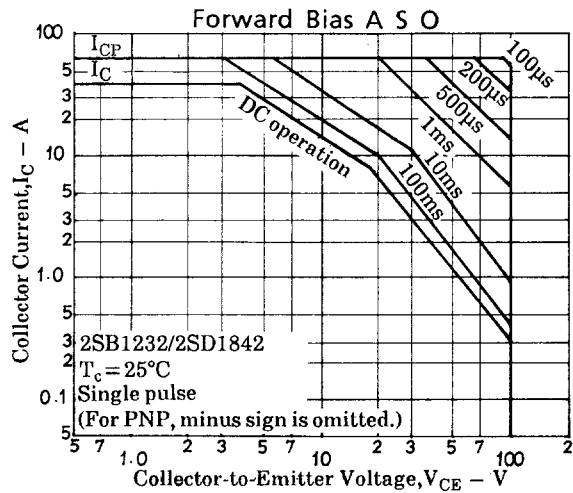
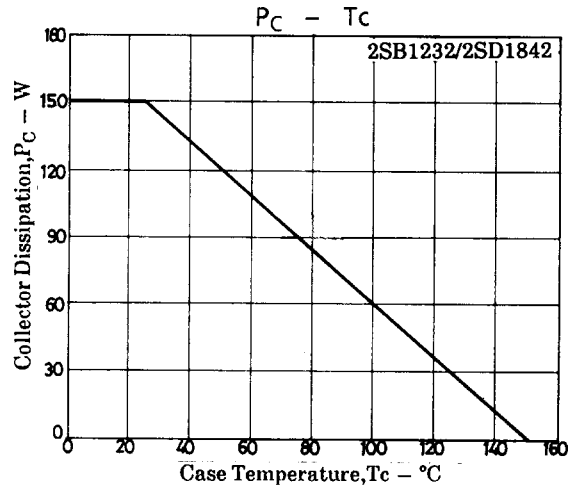
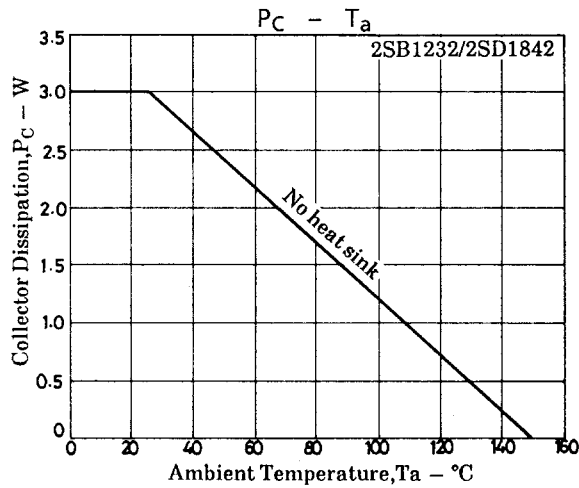
50	P	100	70	Q	14
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