

SANYO

No.3249

2SB1454/2SD2202

PNP/NPN Epitaxial Planar Silicon Transistors

High-Current Switching Applications

Features

- Low collector-to-emitter saturation voltage
- Large current capacity
- Micaless package facilitating easy mounting

(): 2SB1454

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

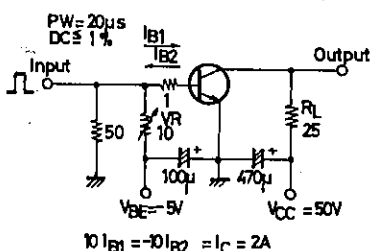
			unit
Collector-to-Base Voltage	V_{CB0}	(-)90	V
Collector-to-Emitter Voltage	V_{CE0}	(-)80	V
Emitter-to-Base Voltage	V_{EB0}	(-)6	V
Collector Current	I_C	(-)5	A
Collector Current (Pulse)	I_{CP}	(-)9	A
Collector Dissipation	P_C	2.0	W
		25	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

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

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = (-)80\text{V}, I_E = 0$			(-)0.1	mA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = (-)4\text{V}, I_C = 0$			(-)0.1	mA
DC Current Gain	$h_{FE}(1)$	$V_{CE} = (-)2\text{V}, I_C = (-)1\text{A}$	70*		280*	
	$h_{FE}(2)$	$V_{CE} = (-)2\text{V}, I_C = (-)3\text{A}$	30			
Gain-Bandwidth Product	f_T	$V_{CE} = (-)5\text{V}, I_C = (-)1\text{A}$		20		MHz
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = (-)3\text{A}, I_B = (-)0.3\text{A}$			0.4 (-0.5)	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = (-)1\text{mA}, I_E = 0$	(-)90			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = (-)1\text{mA}, R_{BE} = \infty$	(-)80			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = (-)1\text{mA}, I_C = 0$	(-)6			V
Turn-ON Time	t_{on}	See specified Test Circuit.	(0.2)0.1			μs
Storage Time	t_{stg}	"	(0.7)1.2			μs
Fall Time	t_f	"	(0.2)0.4			μs

* : The 2SB1454/2SD2202 are classified by 1A h_{FE} as follows :

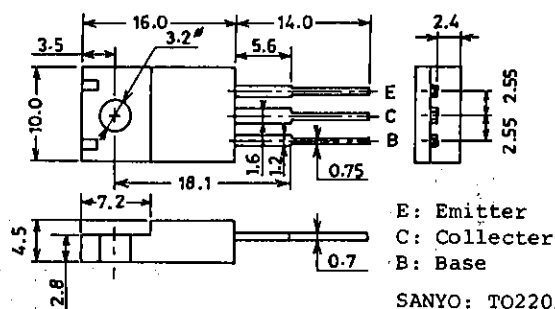
70	Q	140	100	R	200	140	S	280
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Switching Time Test Circuit

For PNP, the polarity is reversed.

Unit (Resistance : Ω , Capacitance : F)**Package Dimensions 2041**

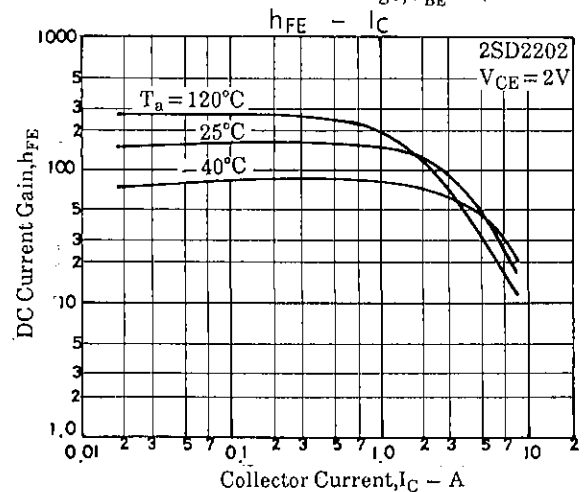
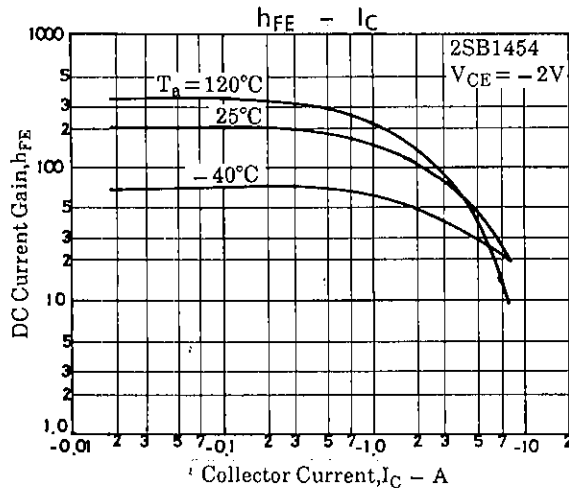
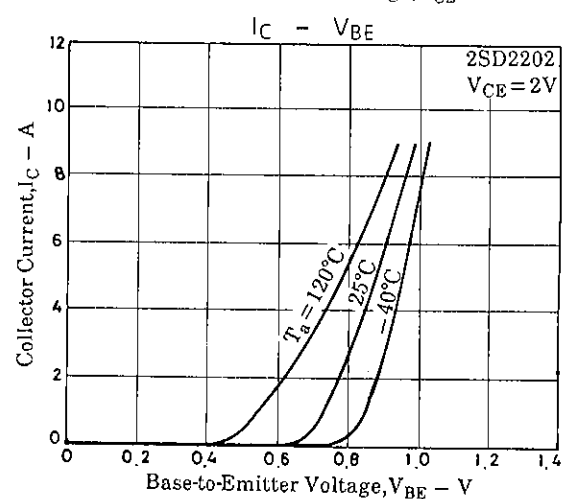
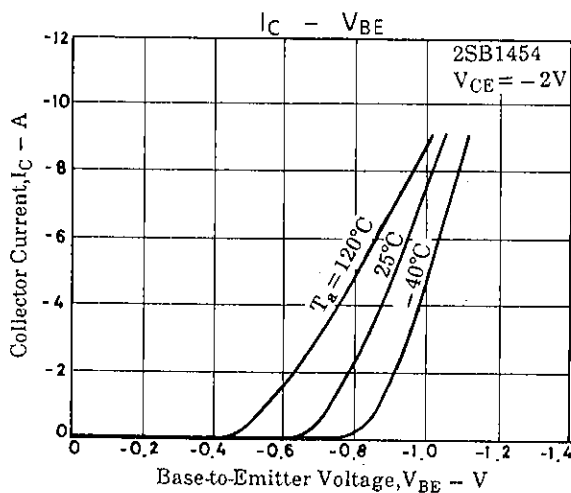
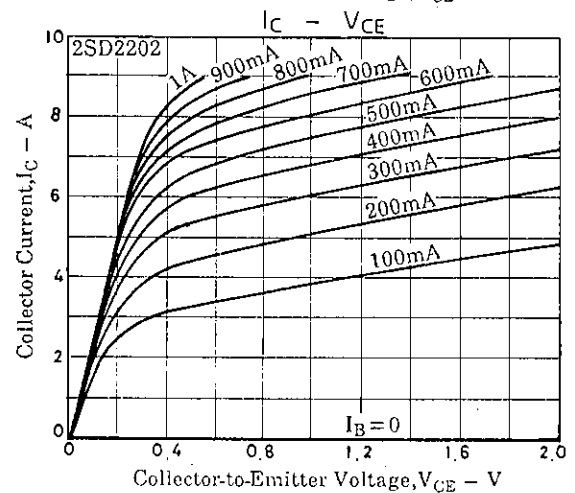
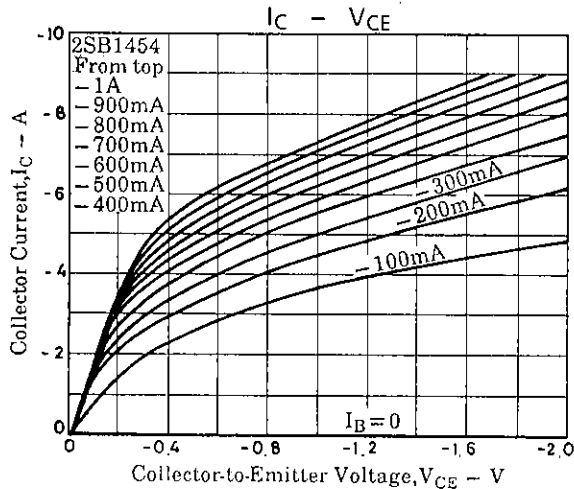
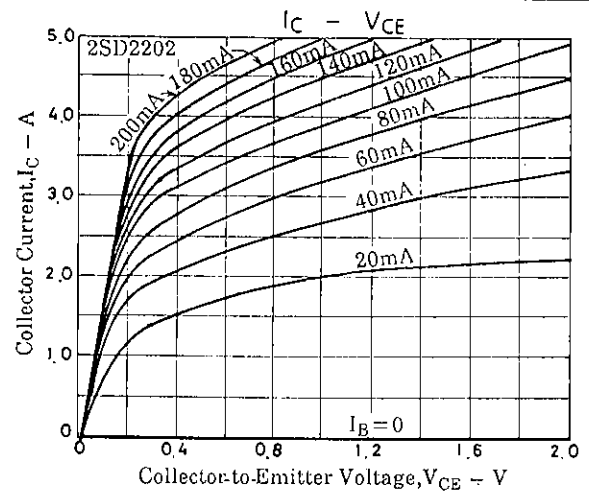
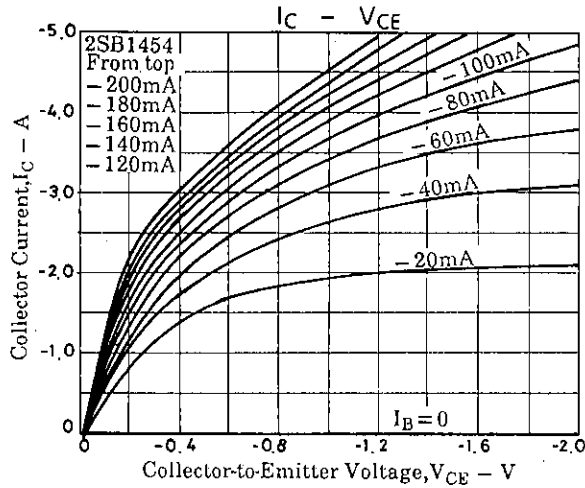
(unit : mm)

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

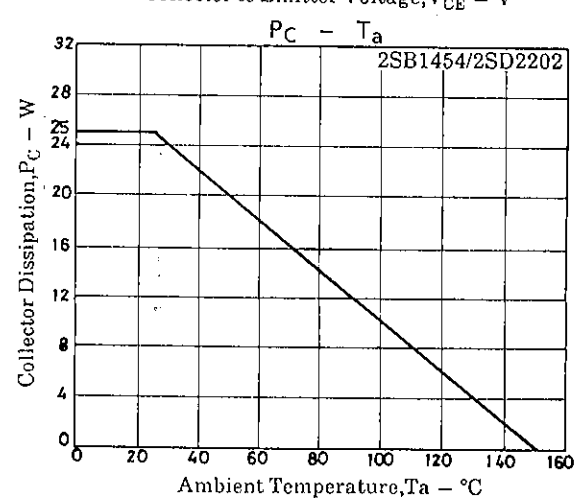
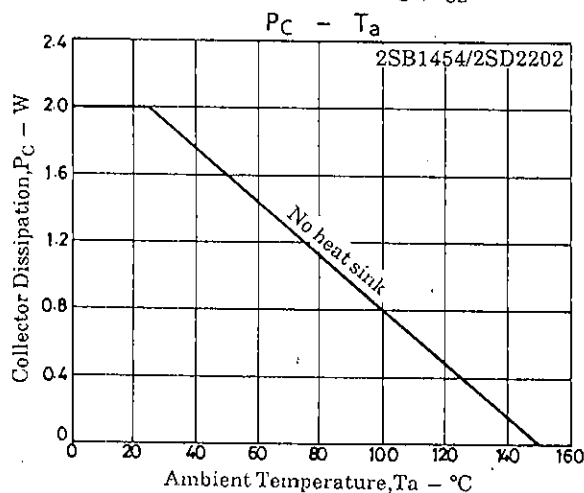
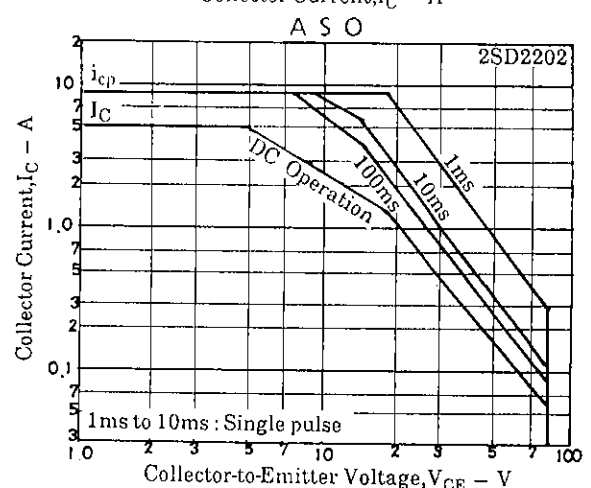
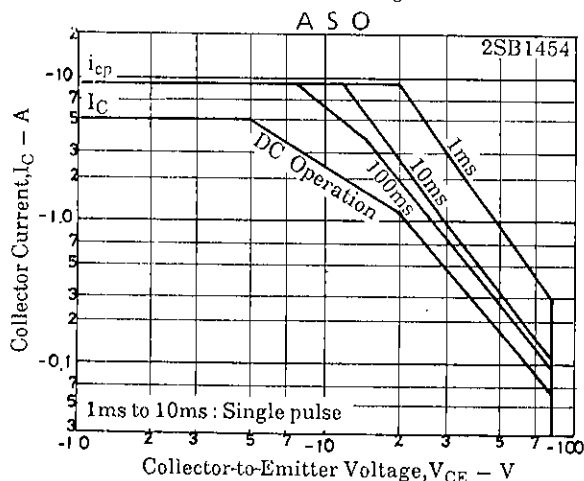
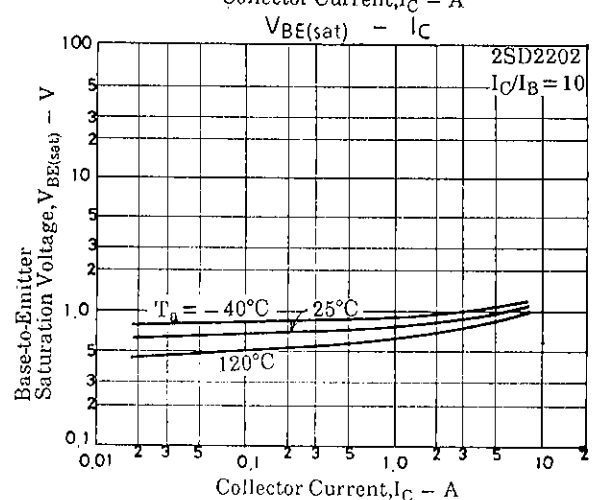
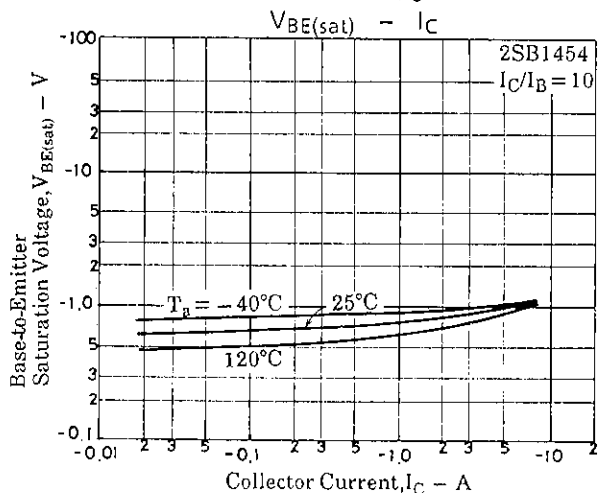
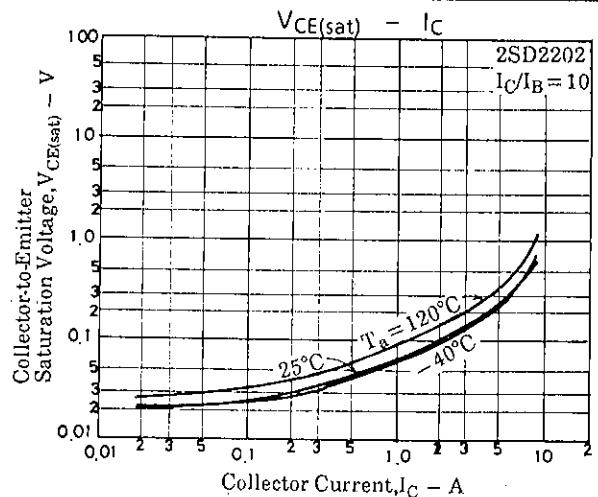
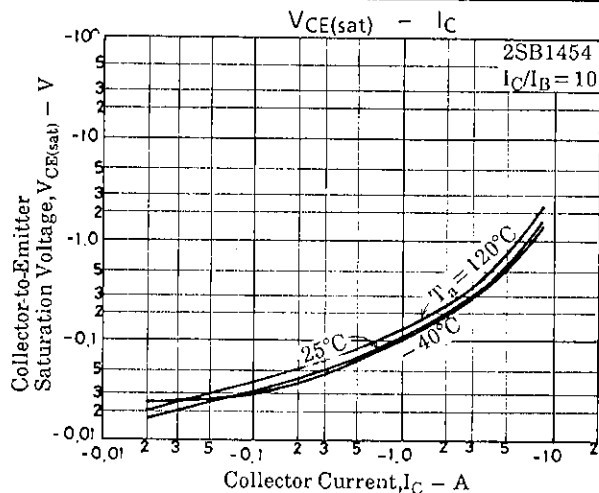
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