

**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 Ta = 25°C**

			unit
Collector-to-Base Voltage	V <sub>CB0</sub>	(- )90	V
Collector-to-Emitter Voltage	V <sub>CEO</sub>	(- )80	V
Emitter-to-Base Voltage	V <sub>EBO</sub>	(- )6	V
Collector Current	I <sub>C</sub>	(- )5	A
Collector Current (Pulse)	I <sub>CP</sub>	(- )9	A
Collector Dissipation	P <sub>C</sub>	2.0	W
		25	W
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55 to +150	°C

T<sub>c</sub> = 25°C

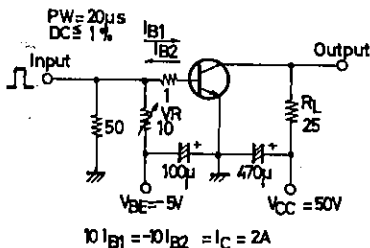
**Electrical Characteristics at Ta = 25°C**

			min	typ	max	unit
Collector Cutoff Current	I <sub>CB0</sub>	V <sub>CB</sub> = (-)80V, I <sub>E</sub> = 0			(- )0.1	mA
Emitter Cutoff Current	I <sub>EBO</sub>	V <sub>EB</sub> = (-)4V, I <sub>C</sub> = 0			(- )0.1	mA
DC Current Gain	h <sub>FE</sub> (1)	V <sub>CE</sub> = (-)2V, I <sub>C</sub> = (-)1A	70*		280*	
	h <sub>FE</sub> (2)	V <sub>CE</sub> = (-)2V, I <sub>C</sub> = (-)3A	30			
Gain-Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> = (-)5V, I <sub>C</sub> = (-)1A		20		MHz
C-E Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = (-)3A, I <sub>B</sub> = (-)0.3A			0.4 (-0.5)	V
C-B Breakdown Voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> = (-)1mA, I <sub>E</sub> = 0	(- )90			V
C-E Breakdown Voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = (-)1mA, R <sub>BE</sub> = ∞	(- )80			V
E-B Breakdown Voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> = (-)1mA, I <sub>C</sub> = 0	(- )6			V
Turn-ON Time	t <sub>on</sub>	See specified Test Circuit.		(0.2)0.1		μs
Storage Time	t <sub>stg</sub>	"		(0.7)1.2		μs
Fall Time	t <sub>f</sub>	"		(0.2)0.4		μs

\* : The 2SB1454/2SD2202 are classified by 1A h<sub>FE</sub> as follows :

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

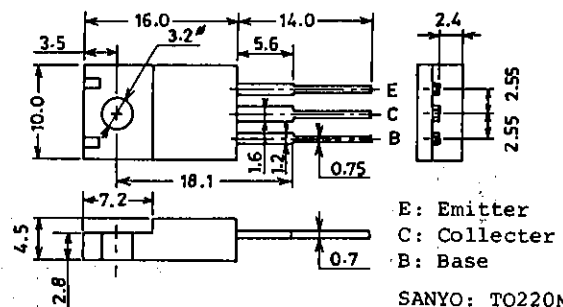


For PNP, the polarity is reversed.

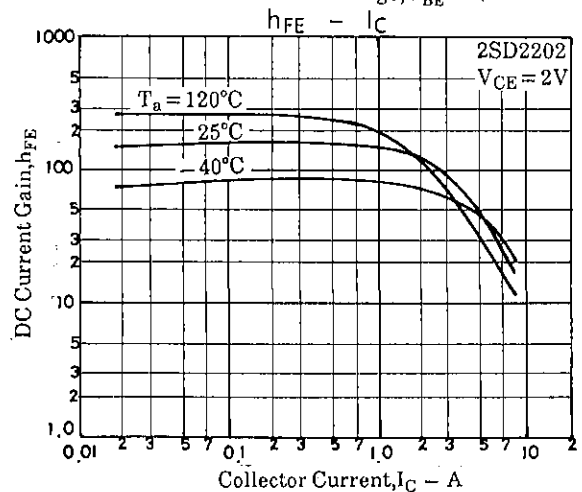
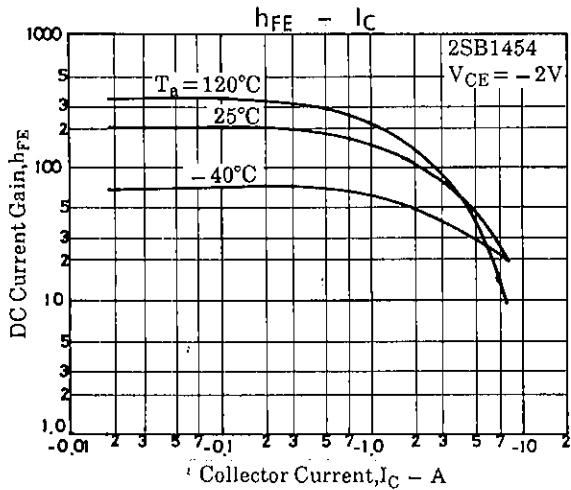
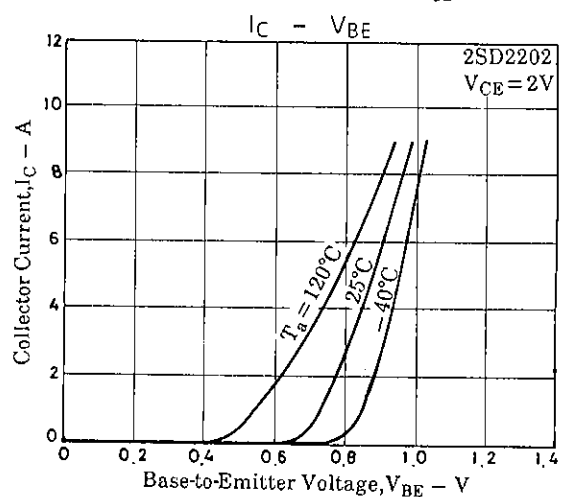
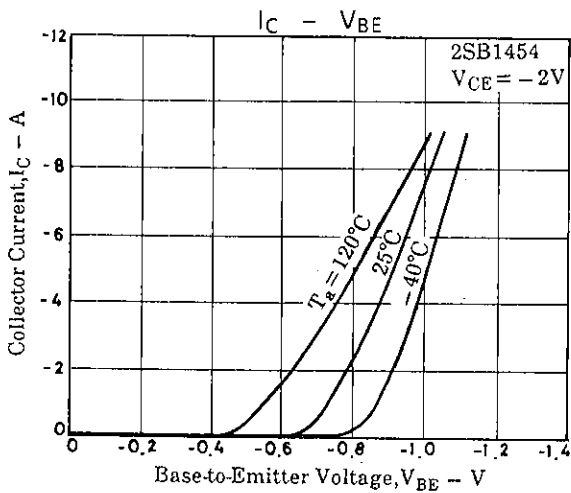
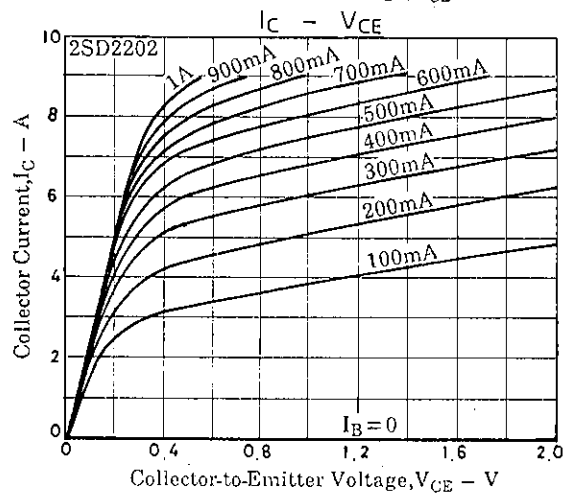
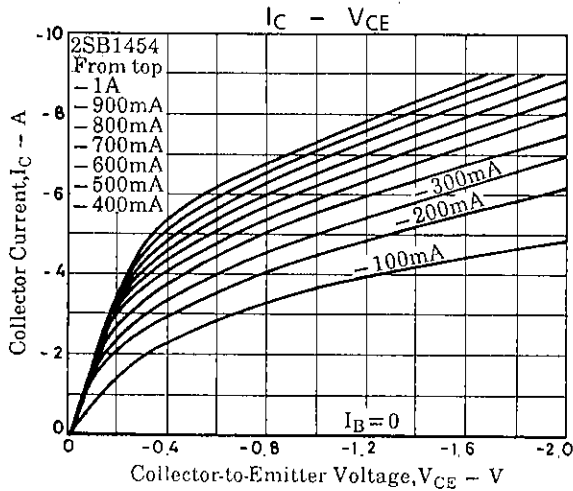
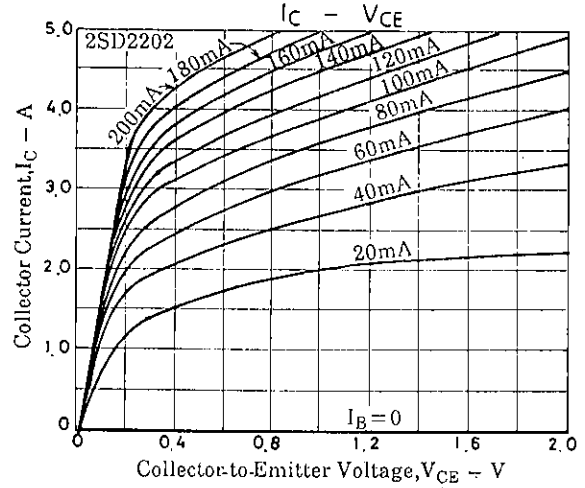
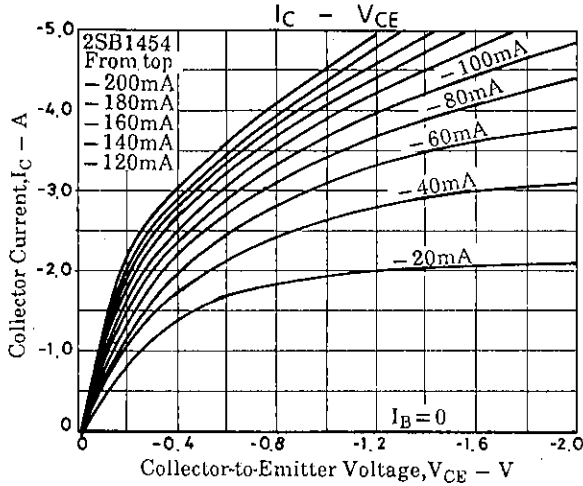
Unit (Resistance : Ω, Capacitance : F)

**Package Dimensions 2041**

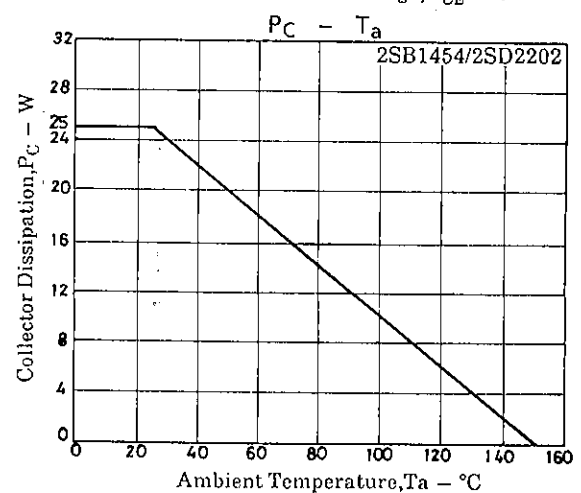
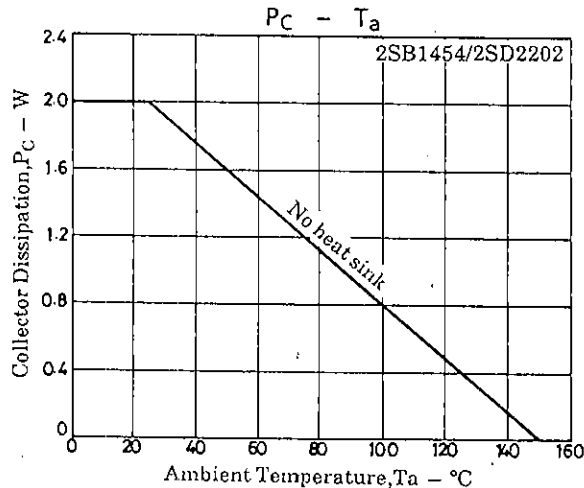
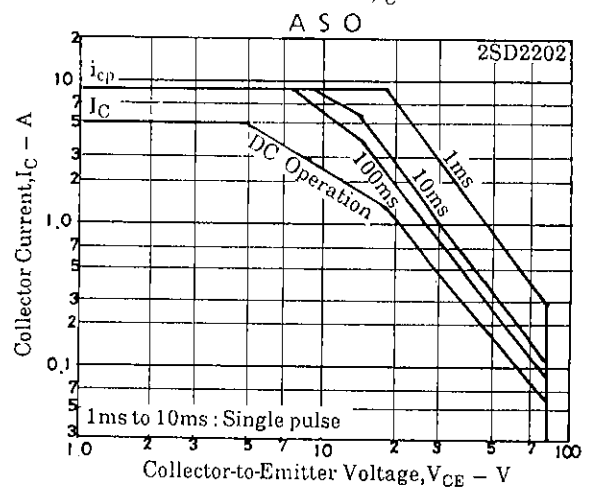
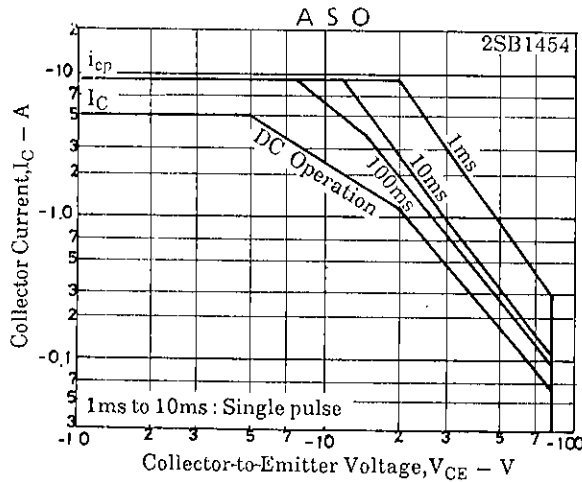
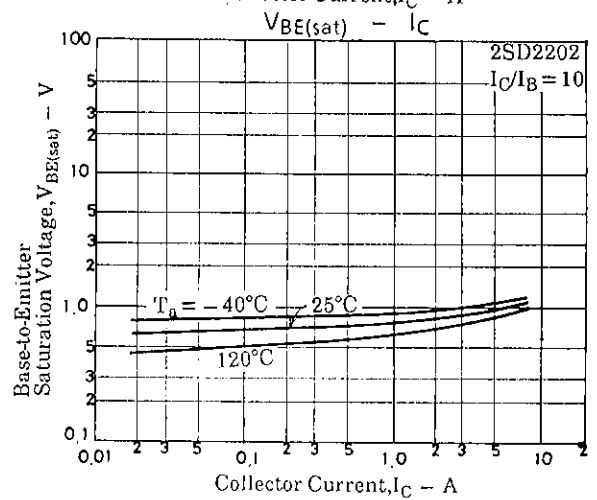
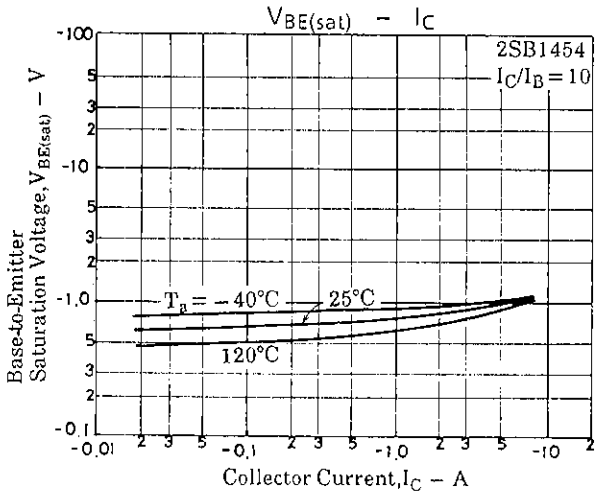
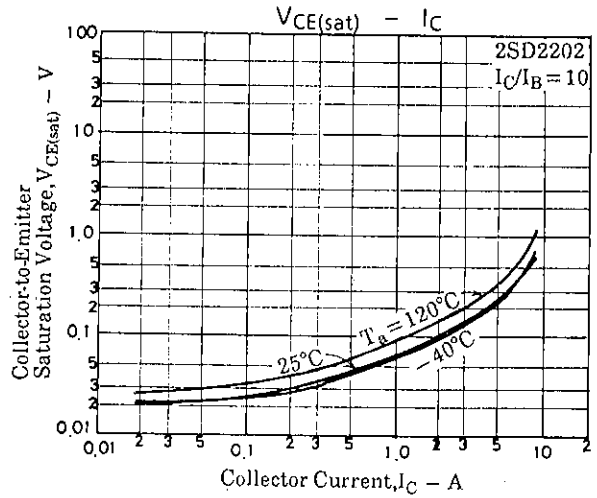
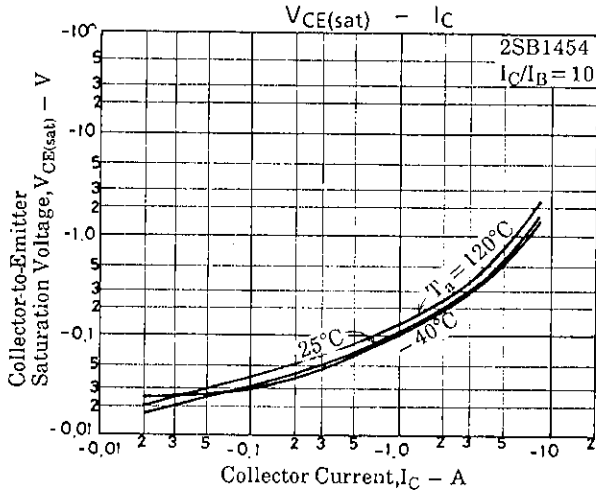
(unit : mm)



2SB1454/2SD2202



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