	No.3259	<h2 style="margin: 0;">2SB1230/2SD1840</h2> <p style="margin: 0;">2SB1230 : PNP Epitaxial Planar Silicon Transistor 2SD1840 : NPN Triple Diffused Planar Silicon Transistor</p> <h3 style="margin: 0;">100V/4A Switching Applications</h3>
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**Features**

- Large current capacity and wide ASO
- Low saturation voltage

**Applications**

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

( ) : 2SB1230

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

			unit
Collector-to-Base Voltage	V <sub>CB0</sub>	(-)110	V
Collector-to-Emitter Voltage	V <sub>CE0</sub>	(-)100	V
Emitter-to-Base Voltage	V <sub>EBO</sub>	(-)6	V
Collector Current	I <sub>C</sub>	(-)15	A
Collector Current (Pulse)	I <sub>CP</sub>	(-)25	A
Base Current	I <sub>B</sub>	(-)5	A
Collector Dissipation	P <sub>C</sub>	3.0	W
		100	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**

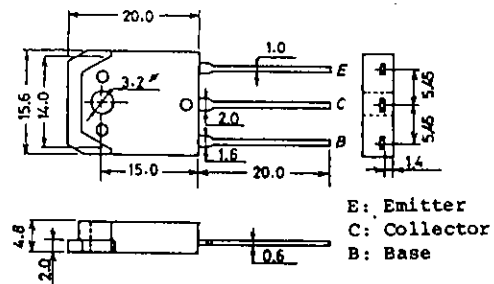
			min	typ	max	unit
Collector Cutoff Current	I <sub>CB0</sub>	V <sub>CB</sub> = (-)100V, I <sub>E</sub> = 0			(-)0.1	mA
Emitter Cutoff Current	I <sub>EBO</sub>	V <sub>EB</sub> = (-)5V, I <sub>C</sub> = 0			(-)0.1	mA
DC Current Gain	h <sub>FE</sub> (1)	V <sub>CE</sub> = (-)2V, I <sub>C</sub> = (-)1.5A	50※		140※	
	h <sub>FE</sub> (2)	V <sub>CE</sub> = (-)2V, I <sub>C</sub> = (-)6A	20			
C-E Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = (-)6A, I <sub>B</sub> = (-)0.6A			(-)0.8	V
B-E Saturation Voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = (-)6A, I <sub>B</sub> = (-)0.6A			(-)1.5	V
C-B Breakdown Voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> = (-)1mA, I <sub>E</sub> = 0	(-)110			V
C-E Breakdown Voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = (-)5mA, R <sub>BE</sub> = ∞	(-)100			V
E-B Breakdown Voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> = (-)1mA, I <sub>C</sub> = 0	(-)6			V

※ : For the h<sub>FE</sub>(1) of the 2SB1230/2SD1840, specify two ranks or more in principle.

50 P 100	70 Q 140	
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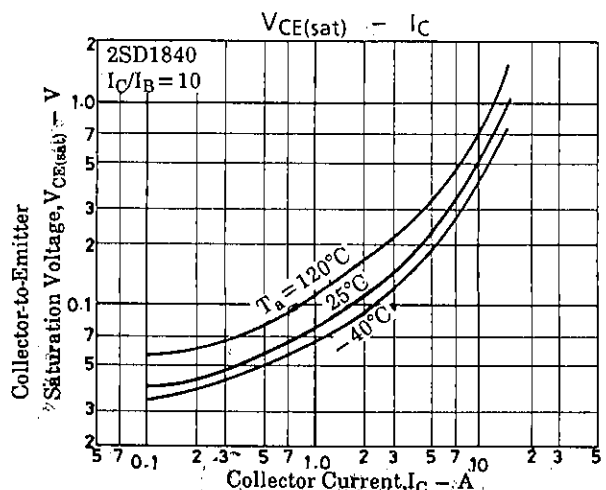
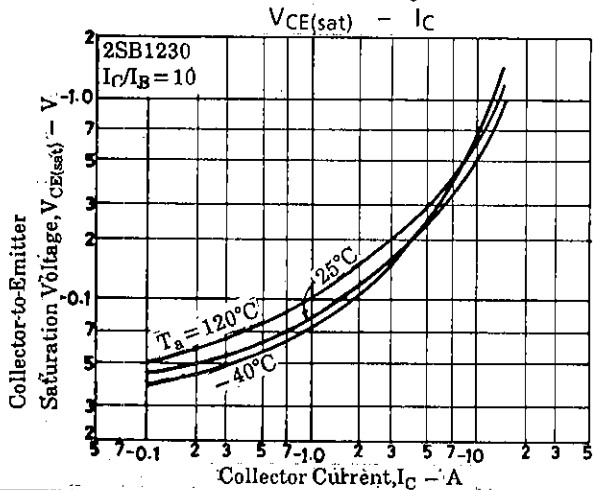
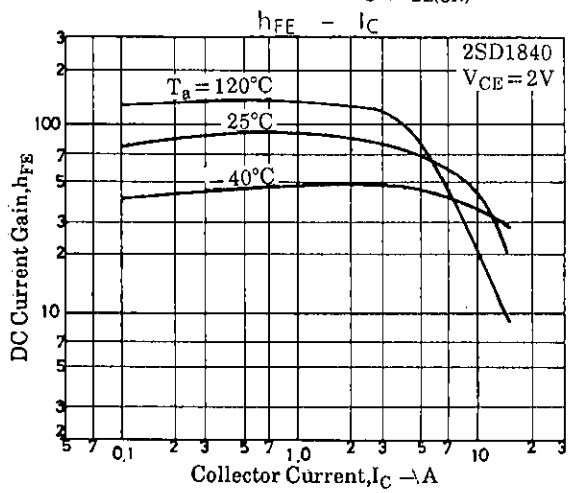
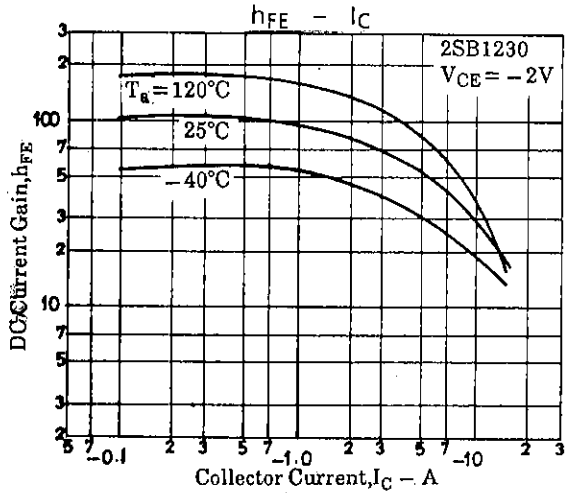
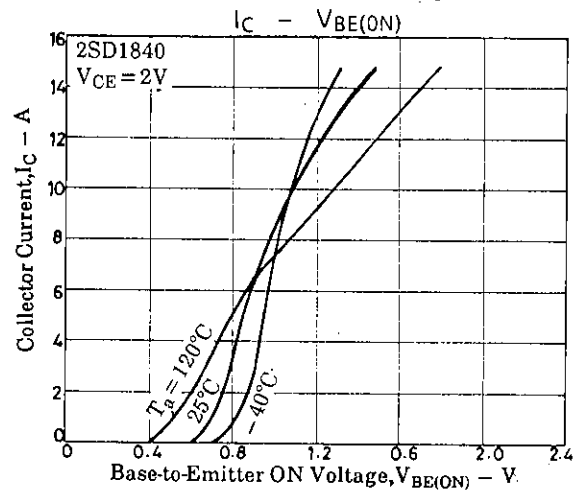
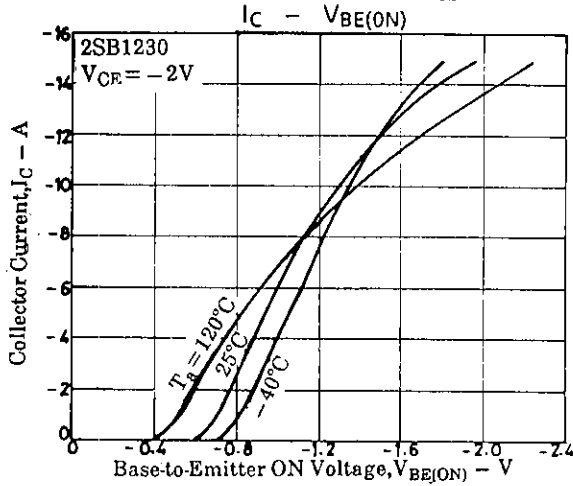
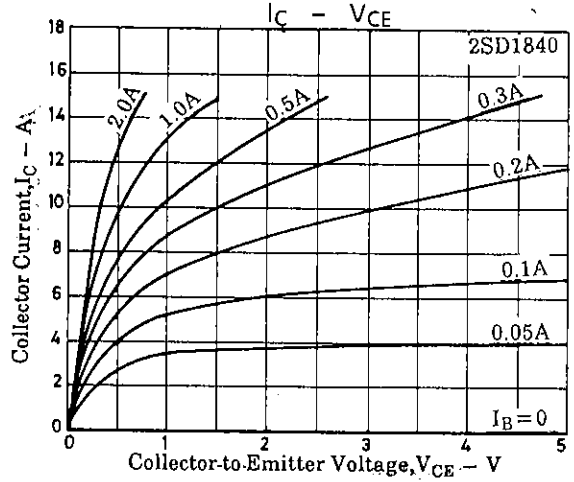
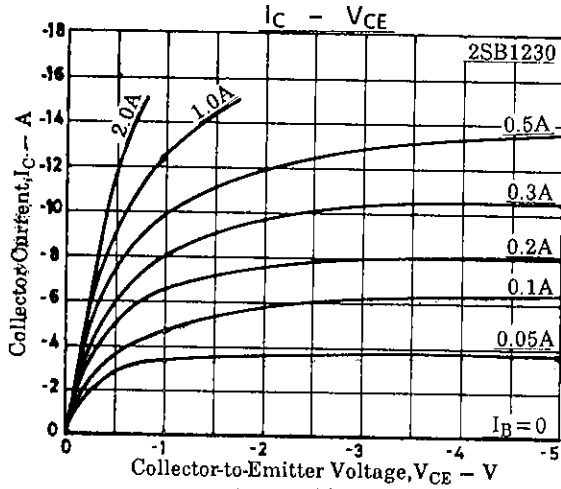
**Package Dimensions 2022**

(unit : mm)

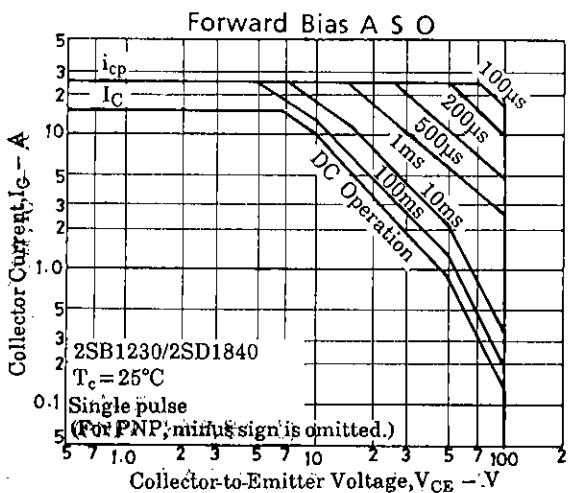
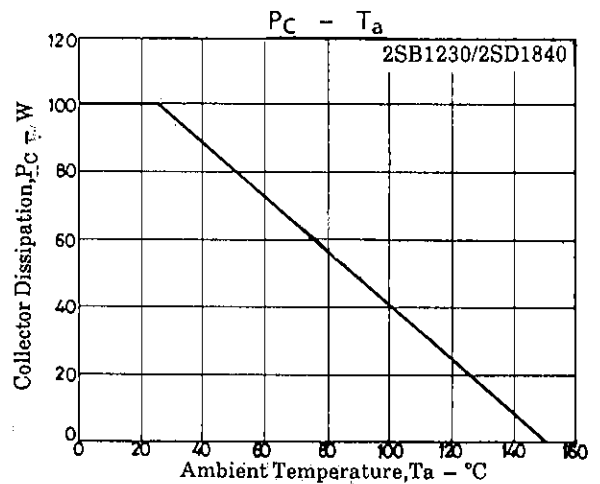
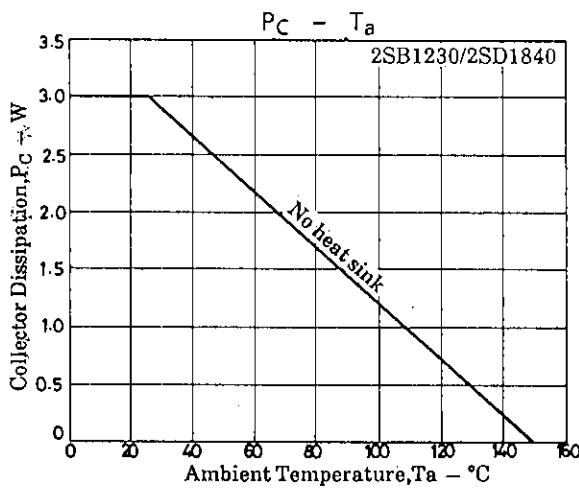
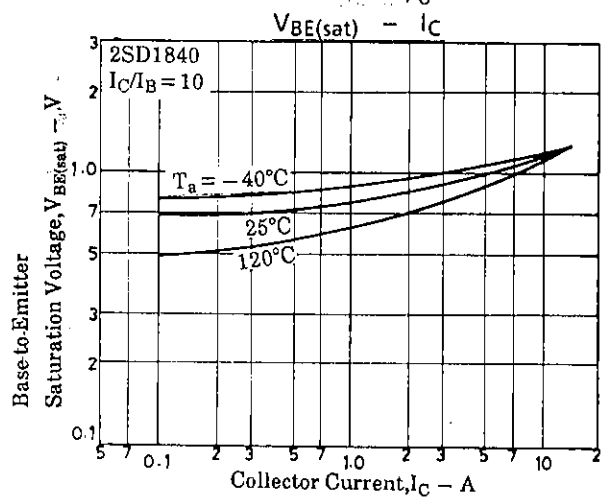
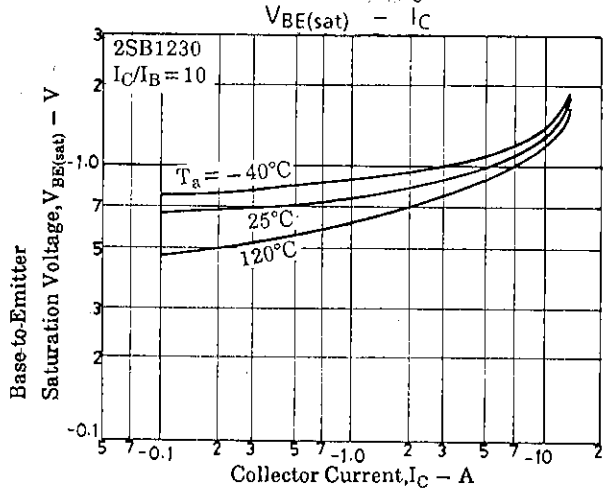
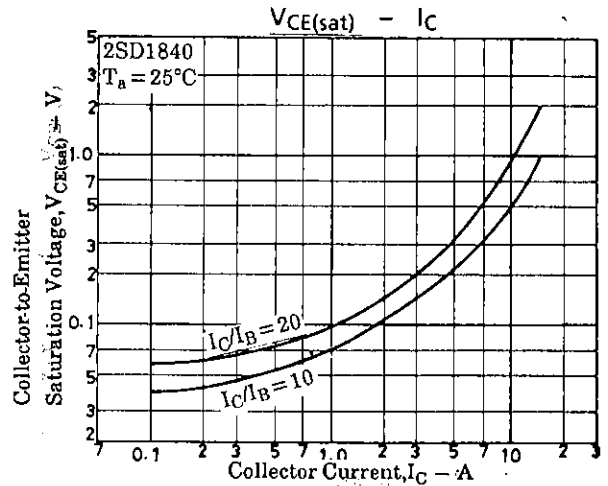
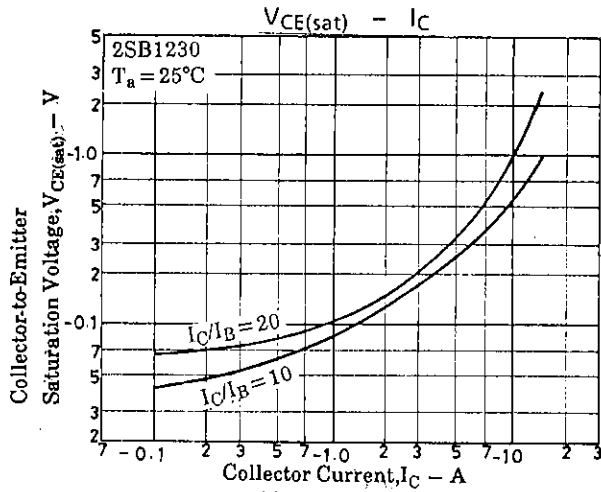


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2SB1230/2SD1840



# 2SB1230/2SD1840



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