

<b>SANYO</b>	No.2017A	<b>2SB1125/2SD1625</b>
		PNP/NPN Epitaxial Planar Silicon Transistors Driver Applications

**Applications**

- Motor drivers, printer hammer drivers, relay drivers, voltage regulator control

**Features**

- High DC current gain.
- Large current capacity and wide ASO
- Very small size making it easy to provide high-density, small-sized hybrid ICs

( ): 2SB1125

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

			unit
Collector to Base Voltage	V <sub>CB0</sub>	(-)80	V
Collector to Emitter Voltage	V <sub>CEO</sub>	(-)50	V
Emitter to Base Voltage	V <sub>EBO</sub>	(-)10	V
Collector Current	I <sub>C</sub>	(-)0.7	A
Collector Current(Pulse)	I <sub>CP</sub>	(-)2	A
Collector Dissipation	P <sub>C</sub>	500	mW
	Mounted on ceramic board (250mm <sup>2</sup> x 0.8mm)	1.3	W
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55 to +150	°C

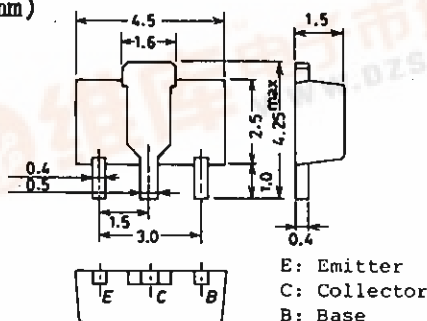
**Electrical Characteristics at Ta=25°C**

			min	typ	max	unit
Collector Cutoff Current	I <sub>CB0</sub>	V <sub>CB</sub> =(-)40V, I <sub>E</sub> =0			(-)100	nA
Emitter Cutoff Current	I <sub>EBO</sub>	V <sub>EB</sub> =(-)8V, I <sub>C</sub> =0			(-)100	nA
DC Current Gain	h <sub>FE</sub> (1)	V <sub>CE</sub> =(-)2V, I <sub>C</sub> =(-)50mA	5000			
	h <sub>FE</sub> (2)	V <sub>CE</sub> =(-)2V, I <sub>C</sub> =(-)500mA	4000			
Gain-Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> =(-)5V, I <sub>C</sub> =(-)50mA	(3000)	200		MHz
				(170)		MHz
Output Capacitance	c <sub>ob</sub>	V <sub>CB</sub> =(-)10V, f=1MHz		9		pF
				(18)		pF

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Marking 2SB1125: BH  
2SD1625: DH

**Package Dimensions 2038**  
(unit:mm)

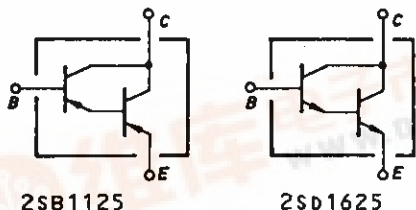


E: Emitter  
C: Collector  
B: Base

SANYO: PCP

(Bottom View)

**Electrical Connection**



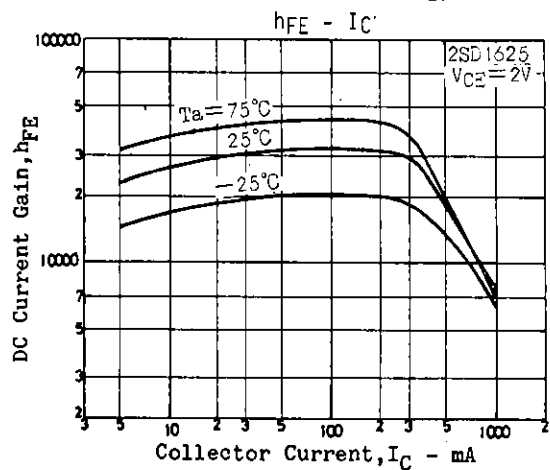
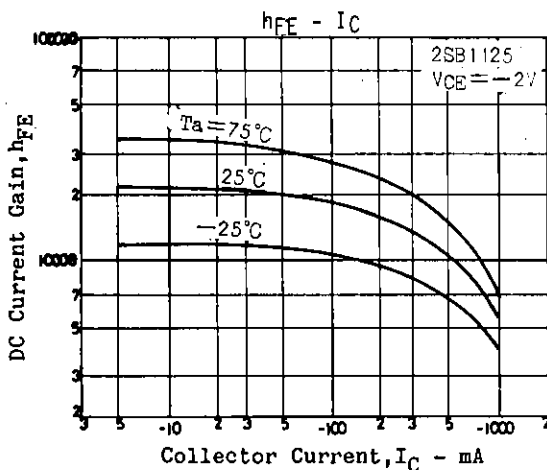
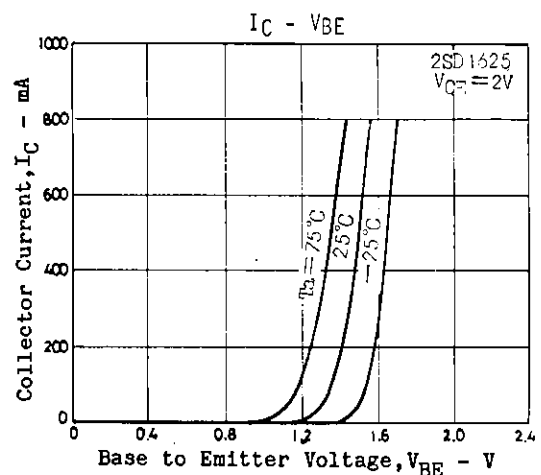
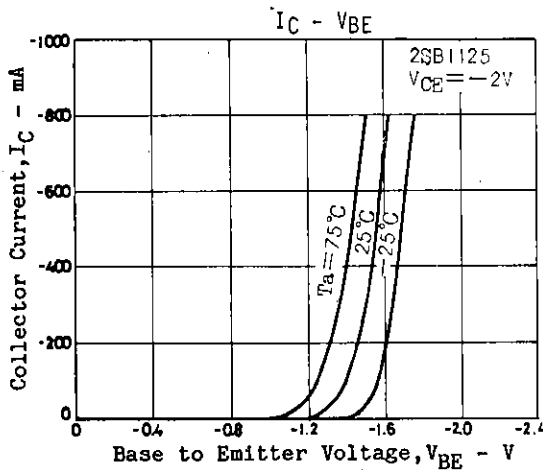
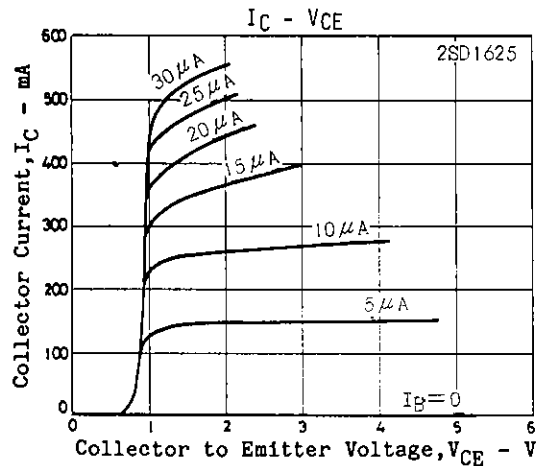
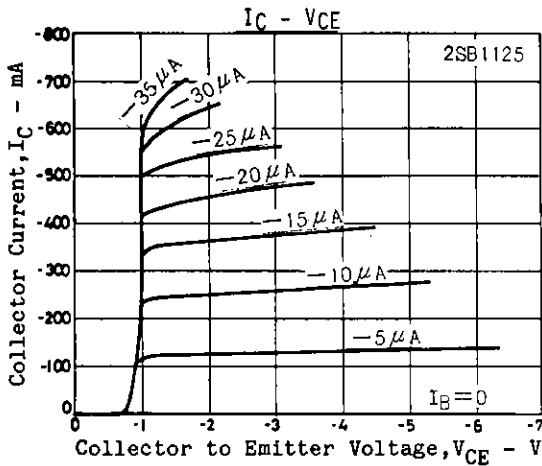
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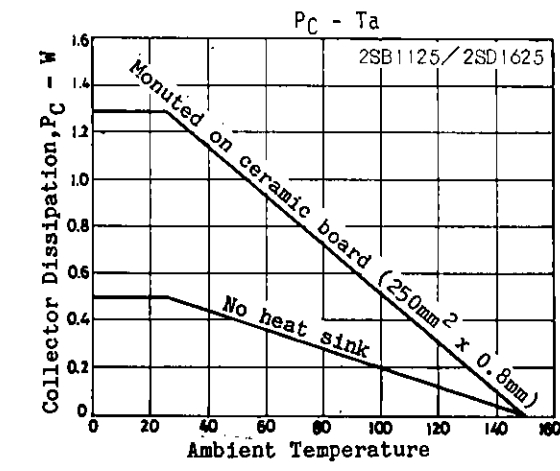
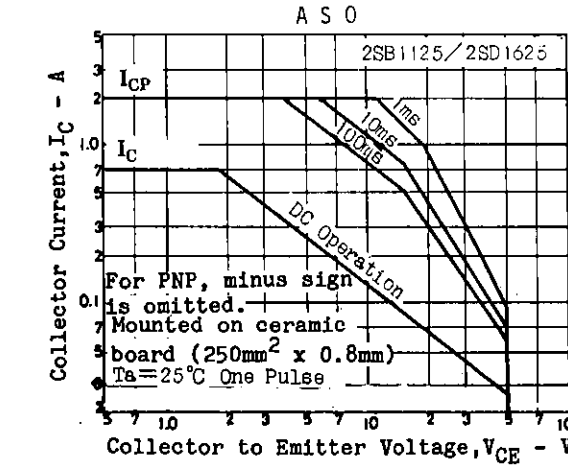
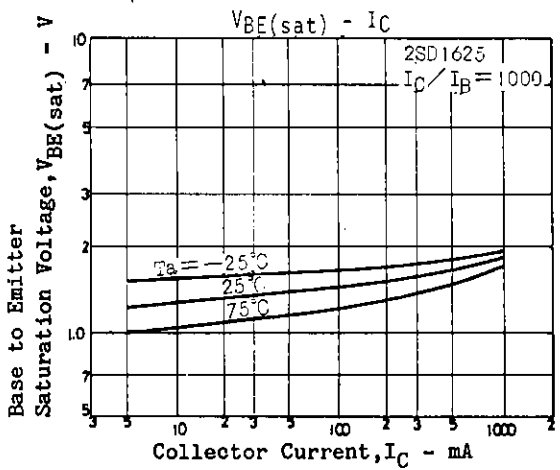
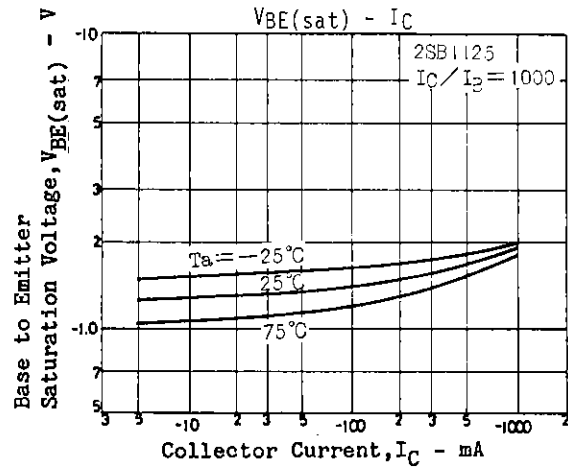
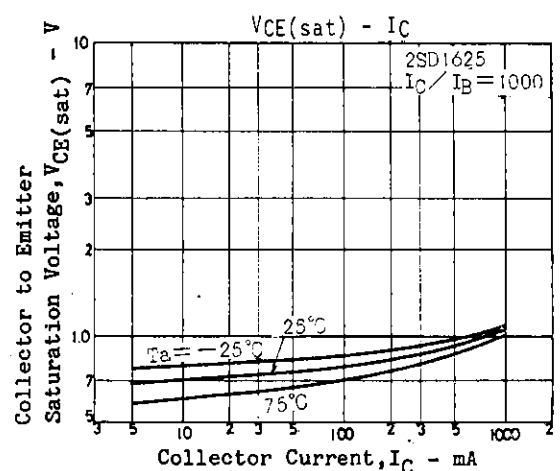
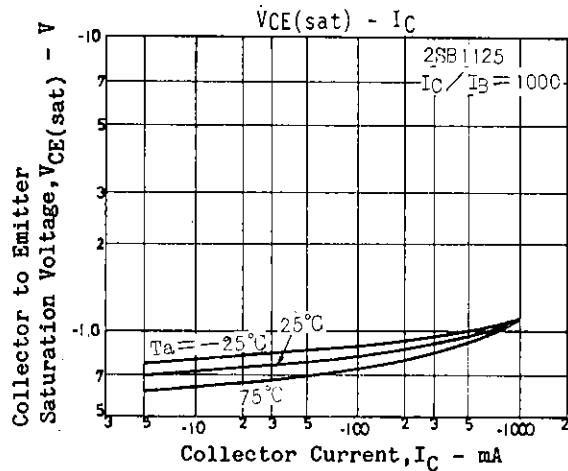
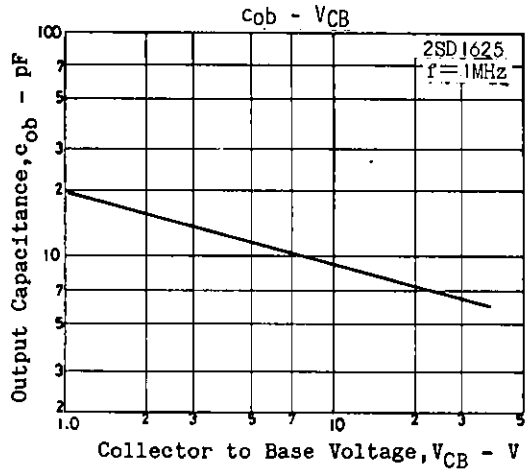
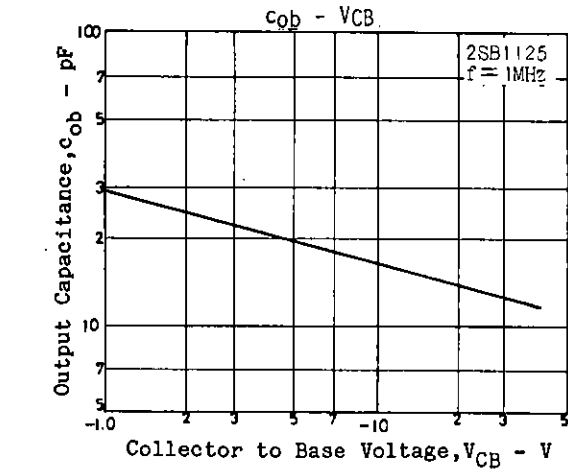
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			min	typ	max	unit
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)100mA, I_B=(-)0.1mA$	(-)0.8	(-)1.2		V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C=(-)100mA, I_B=(-)0.1mA$	(-)1.3	(-)2.0		V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	(-)80			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)1mA, R_{BE}=\infty$	(-)50			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E=(-)10\mu A, I_C=0$	(-)10			V



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