

<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**

Collector to Base Voltage	$V_{CB0}$	(-)80	V
Collector to Emitter Voltage	$V_{CE0}$	(-)50	V
Emitter to Base Voltage	$V_{EB0}$	(-)10	V
Collector Current	$I_C$	(-)0.7	A
Collector Current(Pulse)	$I_{CP}$	(-)2	A
Collector Dissipation	$P_C$	500	mW
Mounted on ceramic board (250mm <sup>2</sup> x 0.8mm)			
Junction Temperature	$T_j$	150	°C
Storage Temperature	$T_{stg}$	-55 to +150	°C

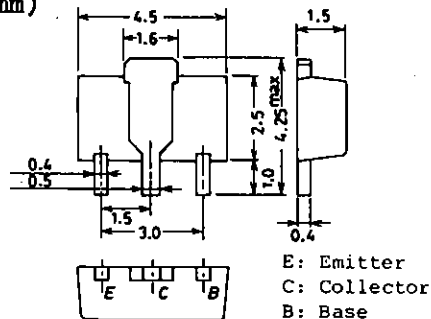
**Electrical Characteristics at Ta=25°C**

			min	typ	max	unit
Collector Cutoff Current	$I_{CBO}$	$V_{CB}=(-)40V, I_E=0$			(-)100	nA
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=(-)8V, I_C=0$			(-)100	nA
DC Current Gain	$h_{FE}(1)$	$V_{CE}=(-)2V, I_C=(-)50mA$	5000			
	$h_{FE}(2)$	$V_{CE}=(-)2V, I_C=(-)500mA$	4000			
Gain-Bandwidth Product	$f_T$	$V_{CE}=(-)5V, I_C=(-)50mA$		200		MHz
				(170)		MHz
Output Capacitance	$c_{ob}$	$V_{CB}=(-)10V, f=1MHz$		9		pF
				(18)		pF

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Marking 2SB1125: BH  
2SD1625: DH

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

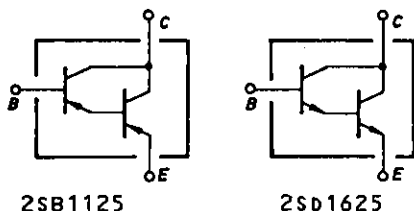


E: Emitter  
C: Collector  
B: Base

SANYO: PCP

(Bottom View)

**Electrical Connection**



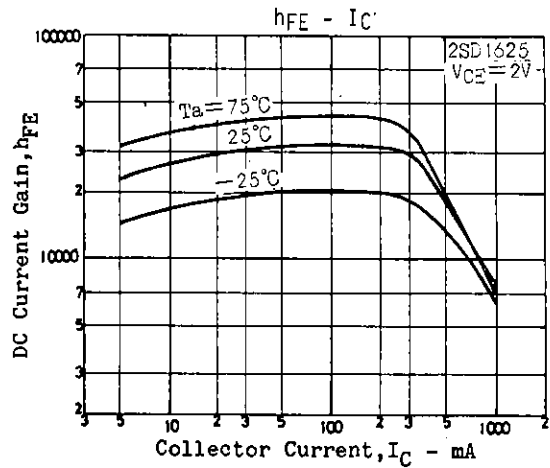
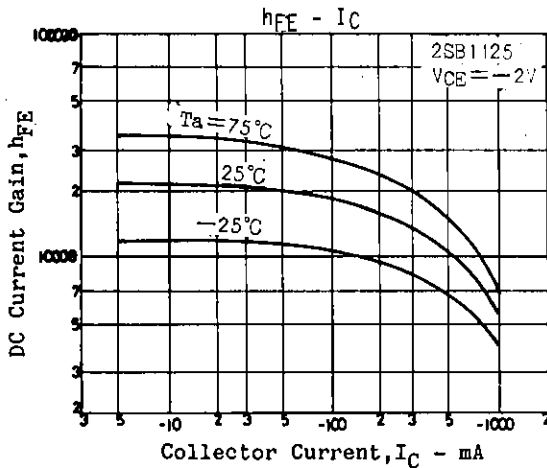
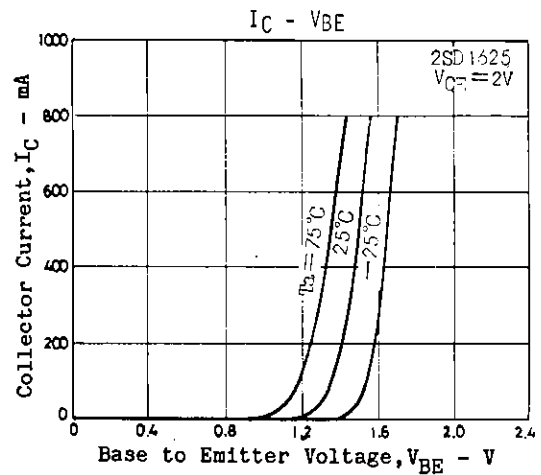
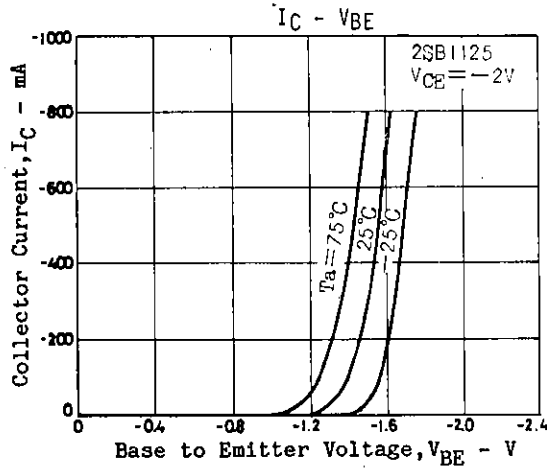
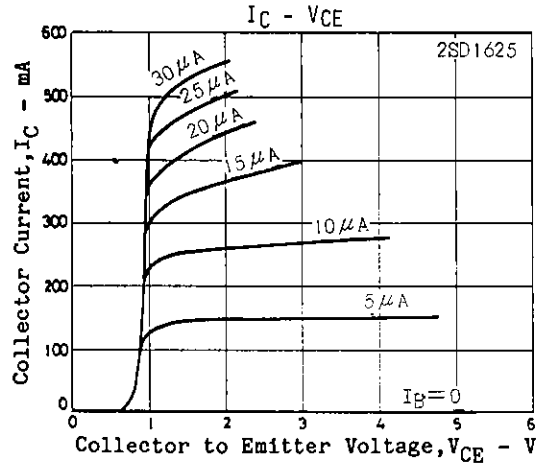
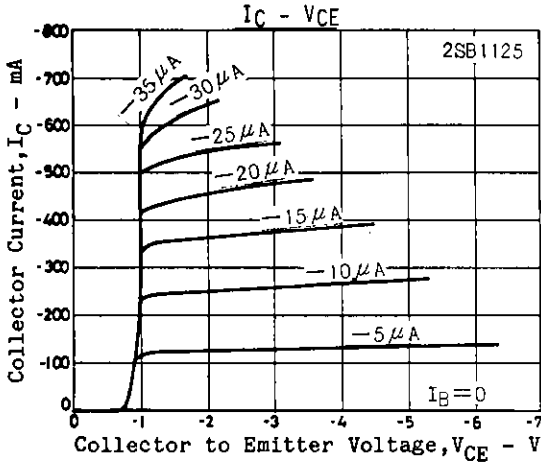
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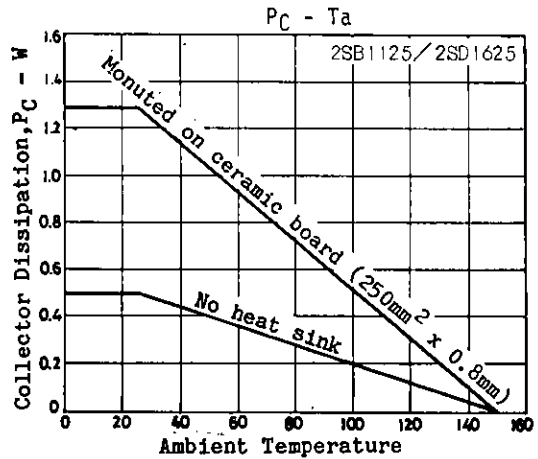
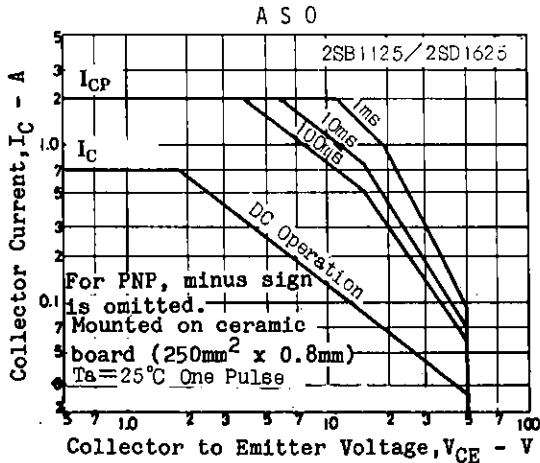
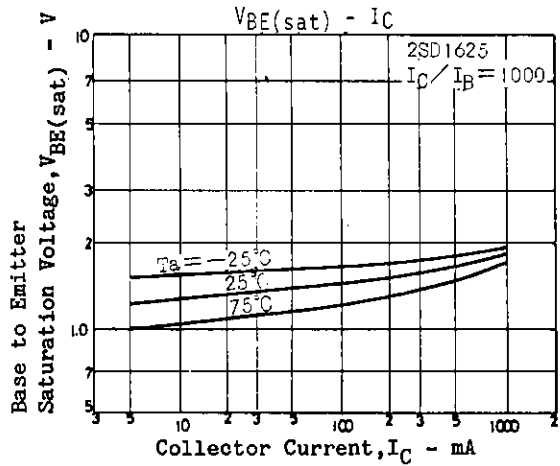
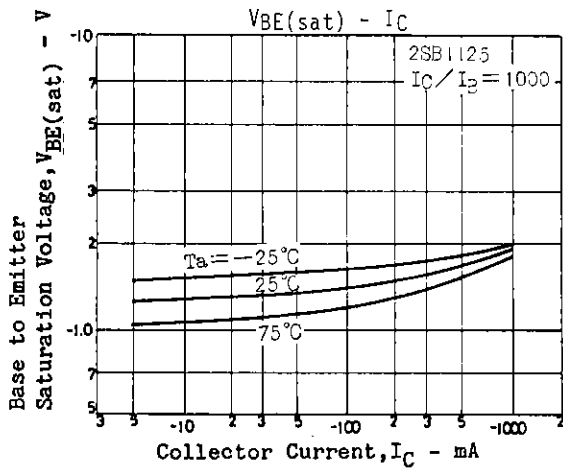
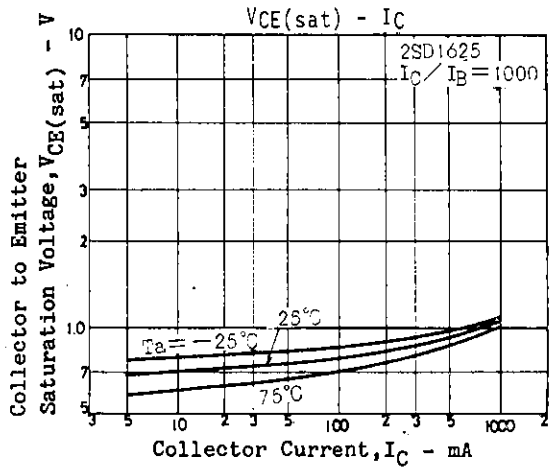
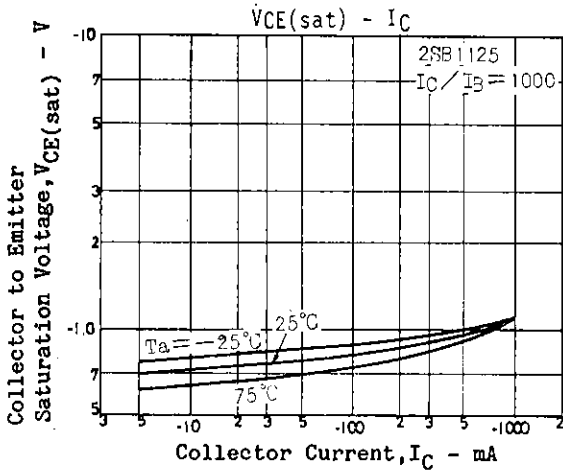
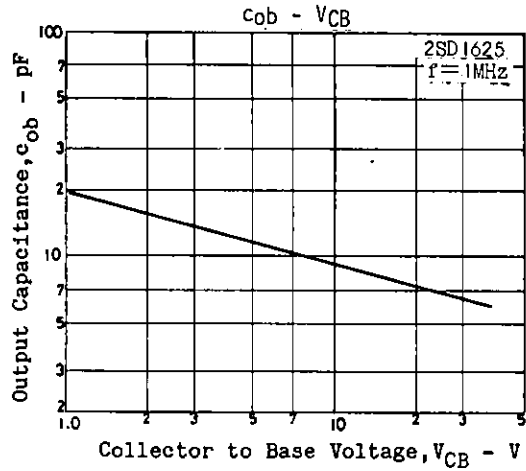
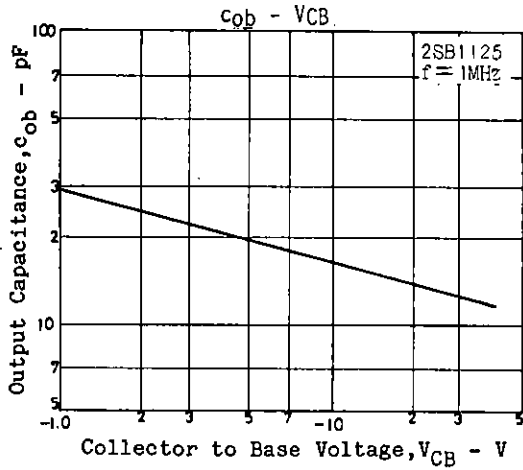
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			min	typ	max	unit
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)100mA, I_B=(-)0.1mA$	$(-)0.8$	$(-)1.2$		V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C=(-)100mA, I_B=(-)0.1mA$	$(-)1.3$	$(-)2.0$		V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$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