


SANYO Semiconductors

DATA SHEET

2SB1125 / 2SD1625 — 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.
- Ultrasmall size making it easy to provide high-density, small-sized hybrid IC's.

Specifications () : 2SB1125

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	VCBO		(-)80	V
Collector-to-Emitter Voltage	VCEO		(-)50	V
Emitter-to-Base Voltage	VEBO		(-)10	V
Collector Current	IC		(-)0.7	A
Collector Current (Pulse)	ICP		(-)2	A
Collector Dissipation	PC		500	mW
		Mounted on a ceramic board (250mm ² ×0.8mm)	1.3	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

Electrical Characteristics

 at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	ICBO	V _{CB} =(-)40V, I _E =0A			(-)100	nA
Emitter Cutoff Current	IEBO	V _{EB} =(-)8V, I _C =0A			(-)100	nA

Marking : 2SB1125 : BH

2SD1625 : DH

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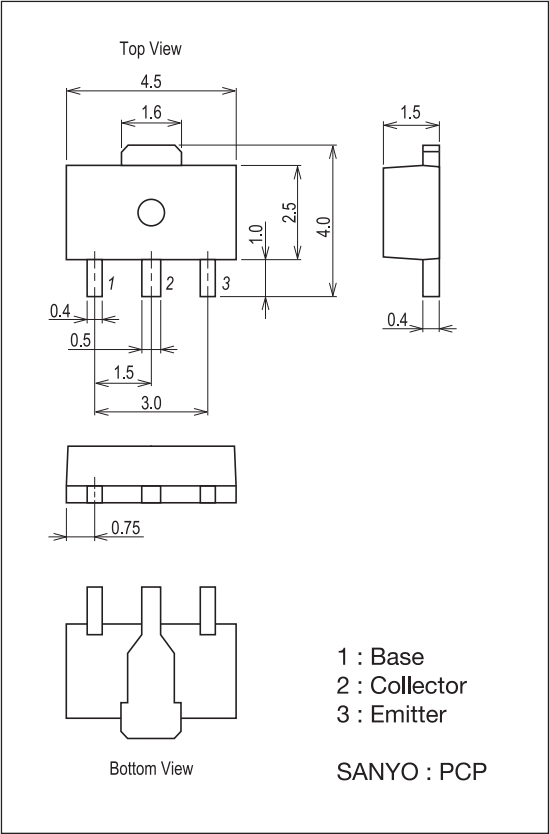
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
DC Current Gain	h_{FE1}	$V_{CE}=(-)2V, I_C=(-)50mA$	5000			
	h_{FE2}	$V_{CE}=(-)2V, I_C=(-)500mA$	(3000)4000			
Gain-Bandwidth Product	f_T	$V_{CE}=(-)5V, I_C=(-)50mA$		(170)200		MHz
Output Capacitance	C_{ob}	$V_{CB}=(-)10V, f=1MHz$		(18)9		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)100mA, I_B=(-)0.1mA$		(-)0.8	(-)1.2	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=(-)100mA, I_B=(-)0.1mA$		(-)1.3	(-)2.0	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=(-)10\mu A, I_E=0A$	(-)80			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)1mA, R_{BE}=\infty$	(-)50			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=(-)10\mu A, I_C=0A$	(-)10			V

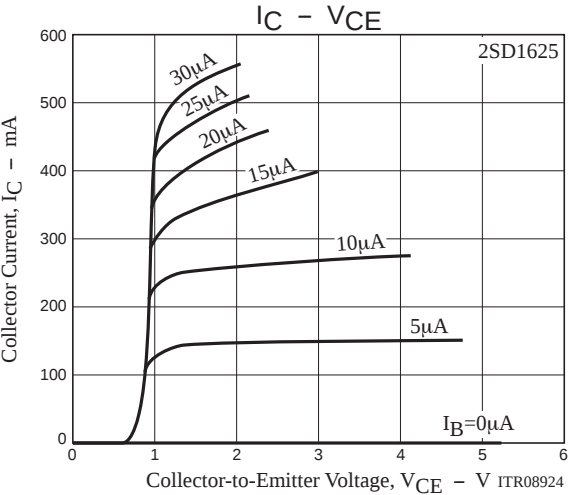
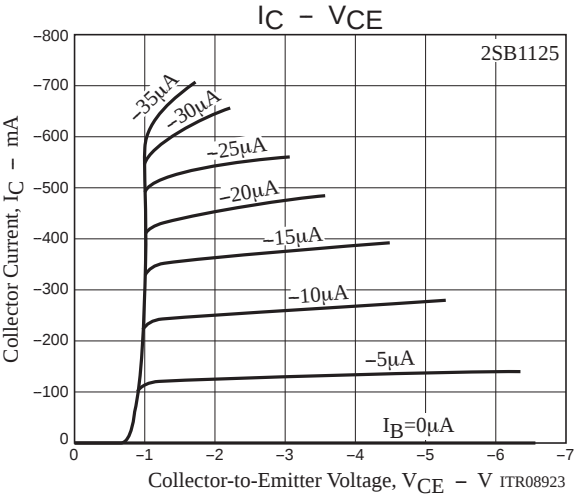
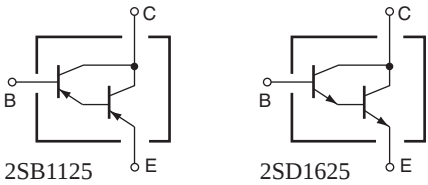
Package Dimensions

unit : mm (typ)

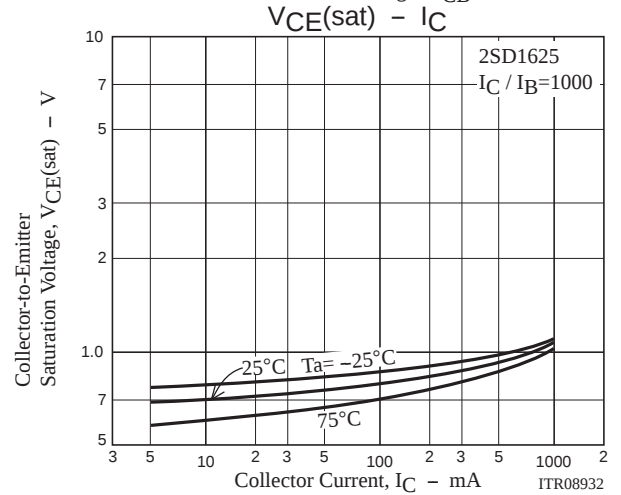
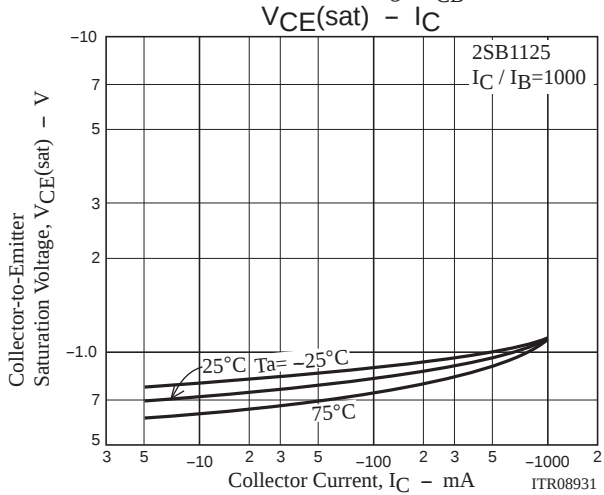
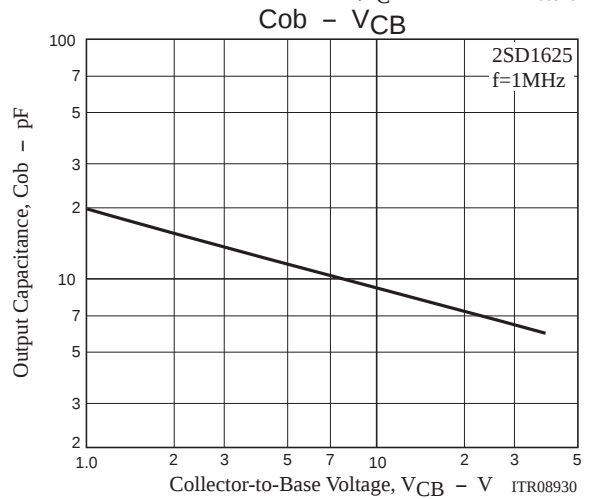
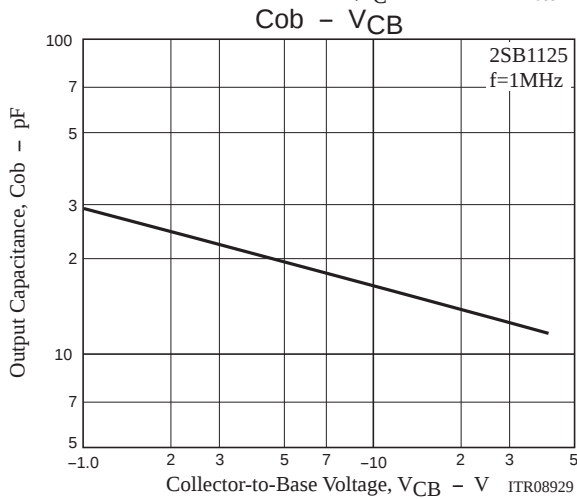
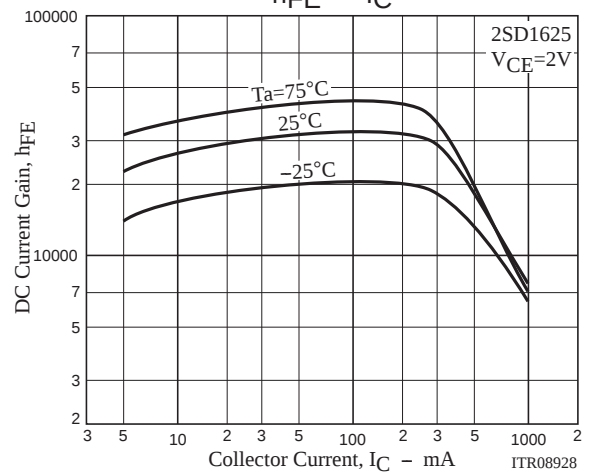
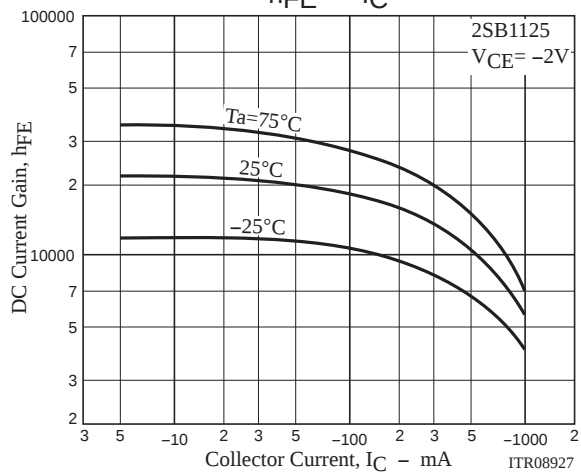
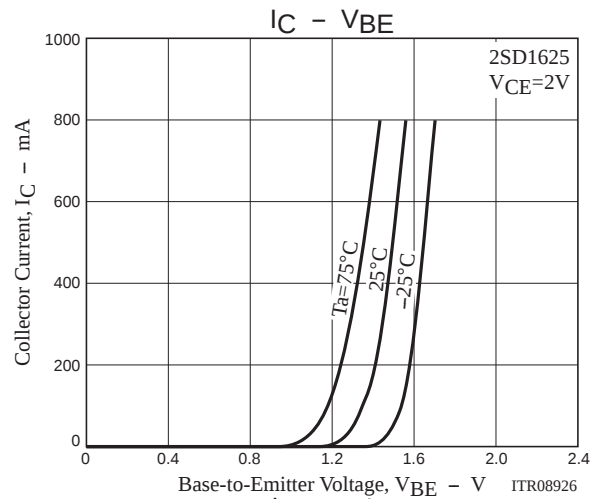
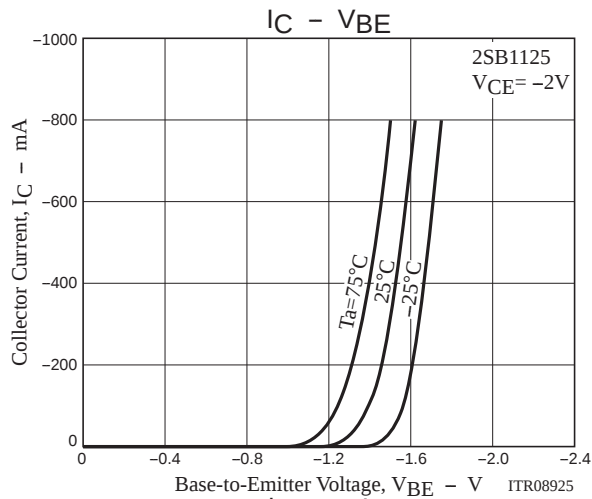
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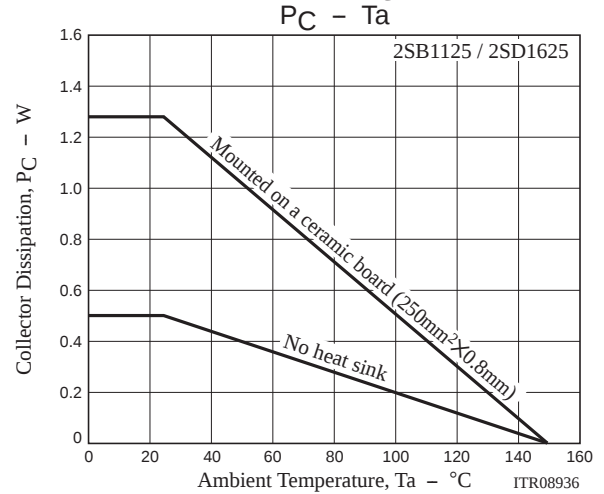
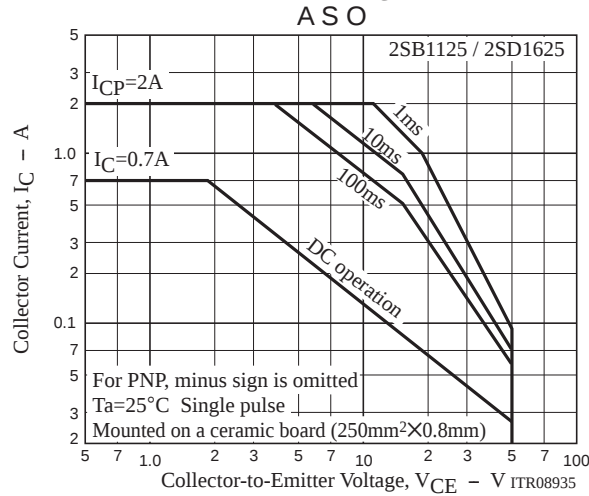
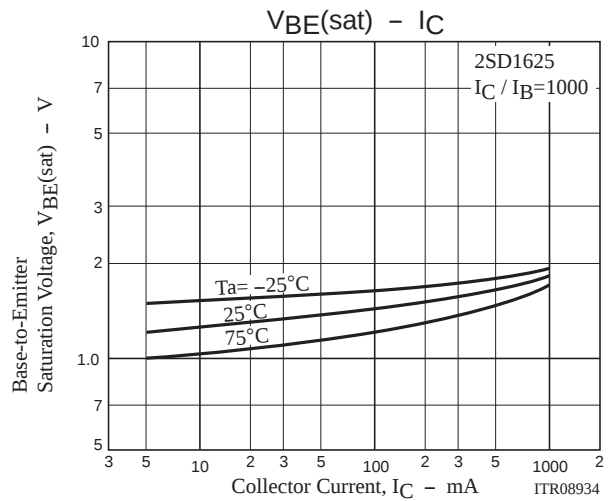
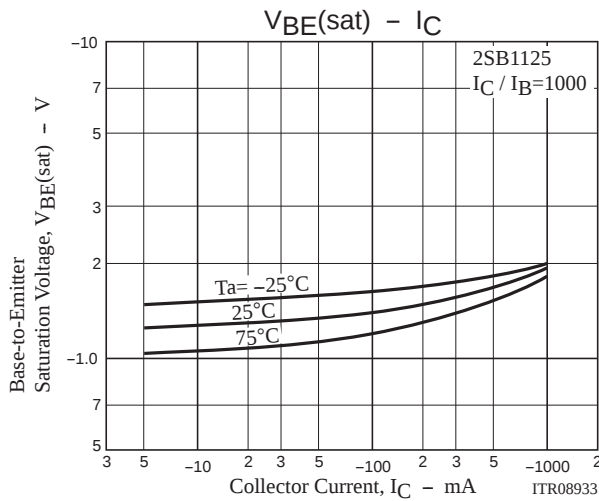
Electrical Connection



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