



SANYO Semiconductors

DATA SHEET

2SB1234 / 2SD1851 — PNP / NPN Epitaxial Planar Silicon Transistors

Driver Applications

Features

- AF amplifier, solenoid drivers, LED drivers.
- Darlington connection.
- High DC current gain.
- Ultrasmall-sized package permitting sets to be made smaller and slimer.

Specifications () : 2SB1234

Absolute Maximum Ratings at $T_a=25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CB0}		(-)80	V
Collector-to-Emitter Voltage	V_{CEO}		(-)50	V
Emitter-to-Base Voltage	V_{EBO}		(-)10	V
Collector Current	I_C		(-)200	mA
Collector Current (Pulse)	I_{CP}		(-)400	mA
Collector Dissipation	P_C		200	mW
Junction Temperature	T_J		150	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +150	$^\circ\text{C}$

Electrical Characteristics at $T_a=25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CB0}	$V_{CB}=-60\text{V}, I_E=0\text{A}$			(-)100	nA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=-8\text{V}, I_C=0\text{A}$			(-)100	nA
DC Current Gain	h_{FE1}	$V_{CE}=-2\text{V}, I_C=-10\text{mA}$	5000			
	h_{FE2}	$V_{CE}=-2\text{V}, I_C=-100\text{mA}$	(3000)4000			
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-100\text{mA}, I_B=-100\mu\text{A}$		(-)0.9	(-)1.5	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=-100\text{mA}, I_B=-100\mu\text{A}$		(-)1.5	(-)2.0	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=-10\mu\text{A}, I_E=0\text{A}$	(-)80			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=-1\text{mA}, R_{BE}=\infty$	(-)50			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=-10\mu\text{A}, I_C=0\text{A}$	(-)10			V

Marking 2SB1234: PL

2SD1851: XY

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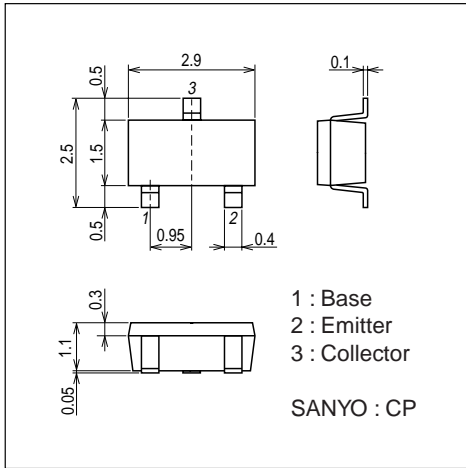
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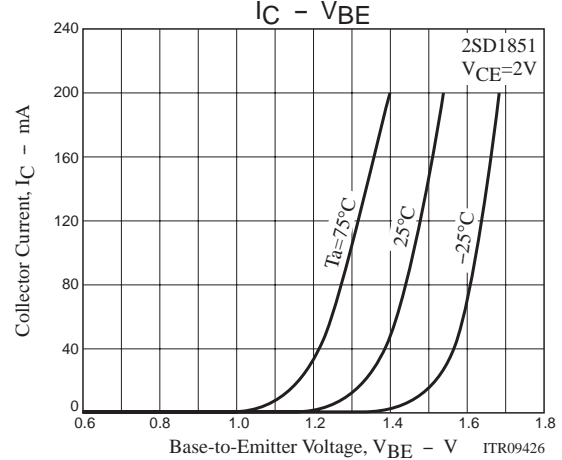
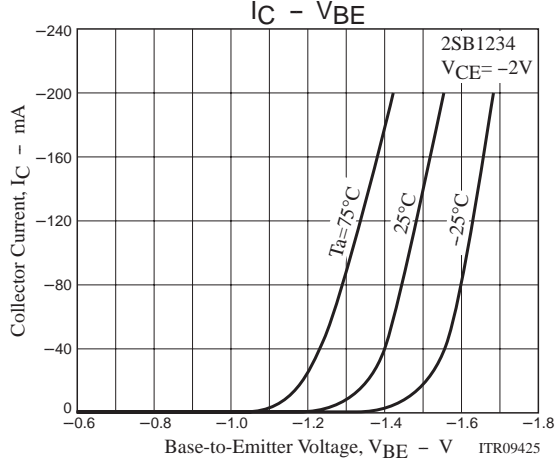
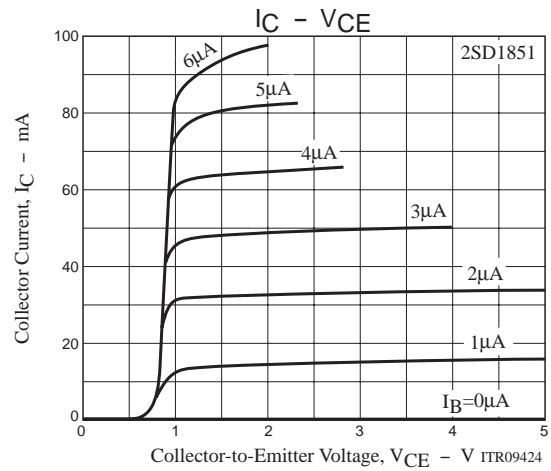
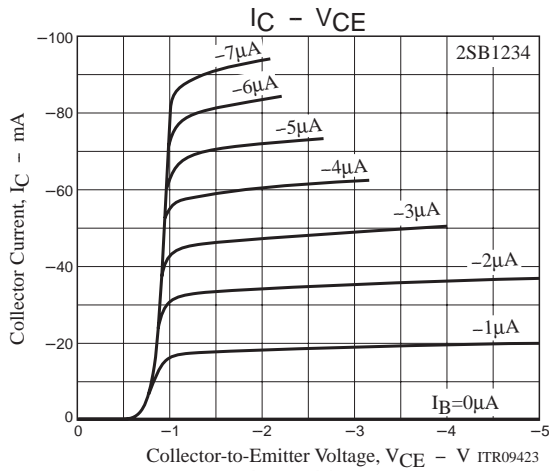
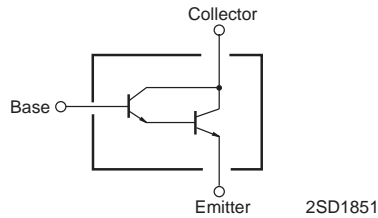
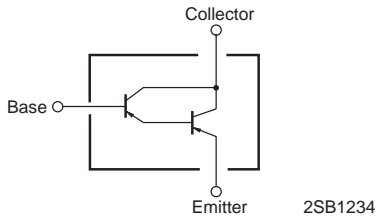
Package Dimensions

unit : mm (typ)

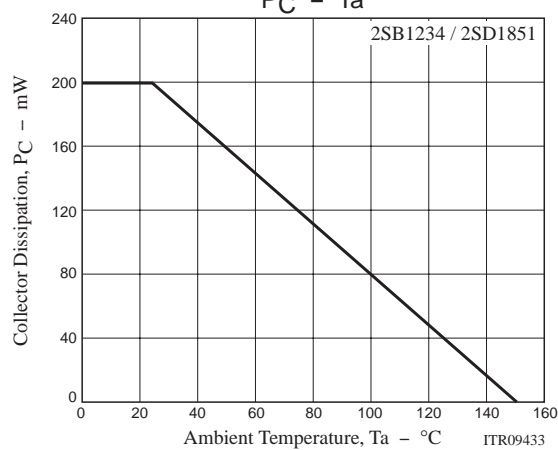
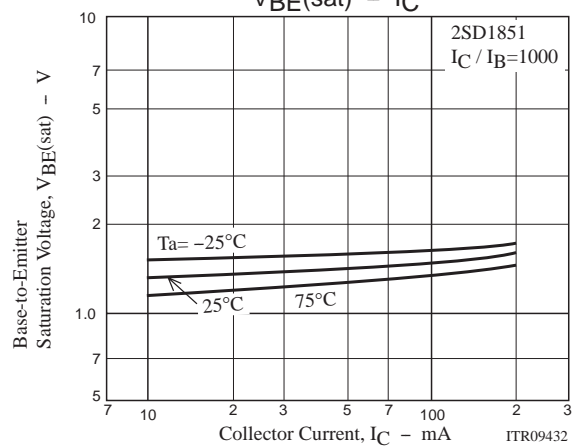
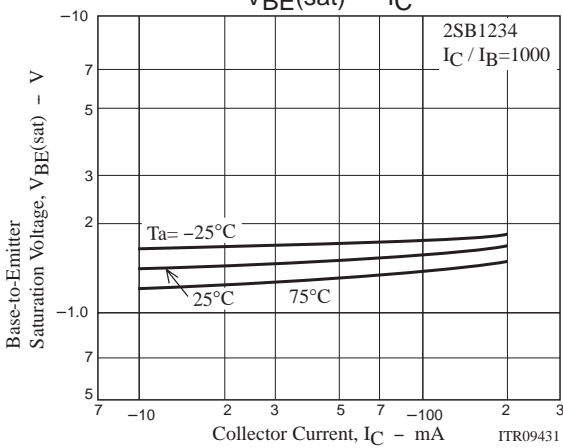
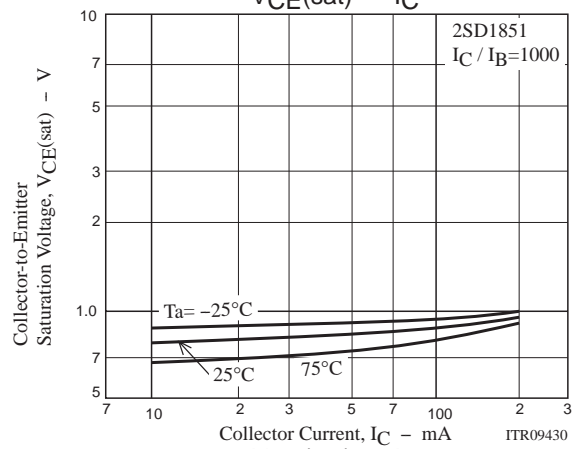
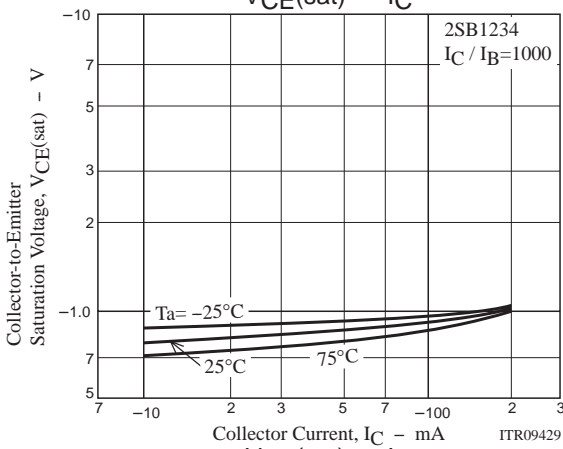
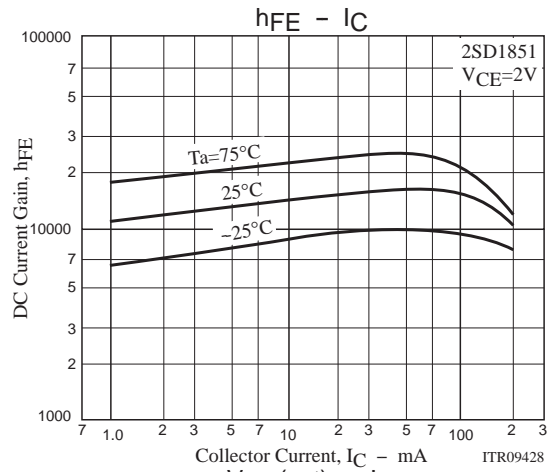
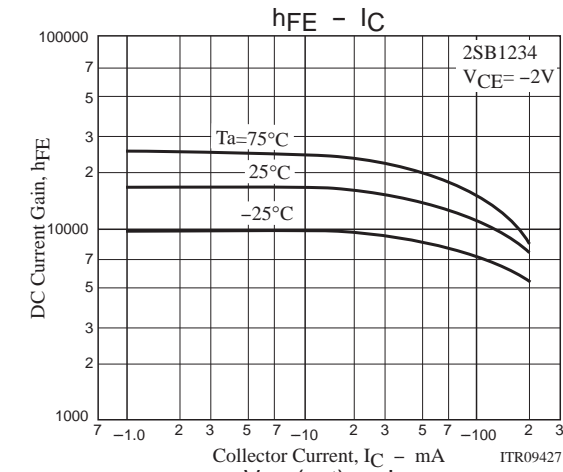
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Electrical Connection



2SB1234 / 2SD1851



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