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Ordering number:EN2506

NPN Epitaxial Planar Silicon Darlington Transistor

2SD1853

Driver Applications

Applications

· Motor drivers, hammer drivers, relay drivers.

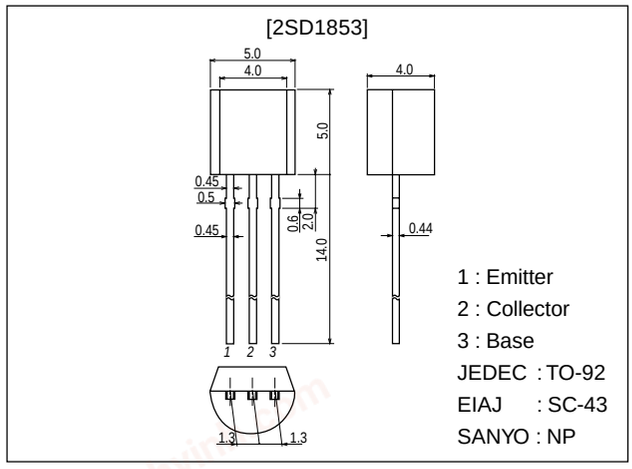
Features

· High DC current gain.
· Low saturation voltage.

Package Dimensions

unit:mm

2003B



Specifications

Absolute Maximum Ratings at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		80	V
Collector-to-Emitter Voltage	V_{CEO}		60	V
Emitter-to-Base Voltage	V_{EBO}		6	V
Collector Current	I_C		1.5	A
Collector Current (Pulse)	I_{CP}		3	A
Collector Dissipation	P_C		0.7	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	I_{CBO}	V_{CB}=60V, I_E=0			10	μA
Emitter Cutoff Current	I_{EBO}	V_{EB}=5V, I_C=0			2.5	mA
DC Current Gain	$h_{FE}1$	V_{CE}=2V, I_C=0.5A	1000			
	$h_{FE}2$	V_{CE}=2V, I_C=1A	2000			
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=1A, I_B=2mA			1.5	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=1A, I_B=2mA			2.0	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=1mA, I_E=0	80			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=25mA, R_{BE}=∞	60			V

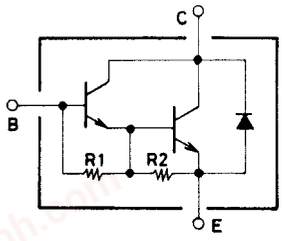
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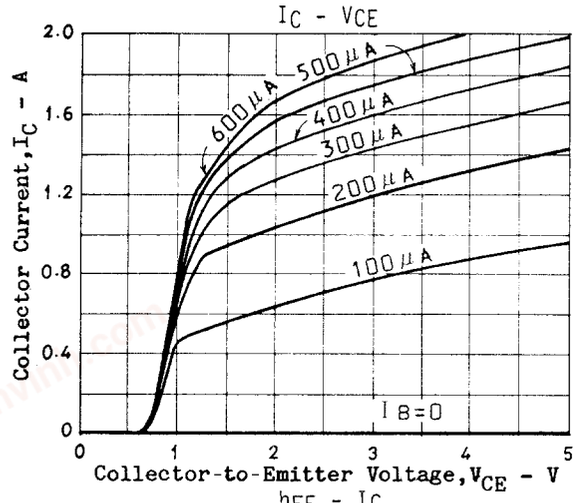
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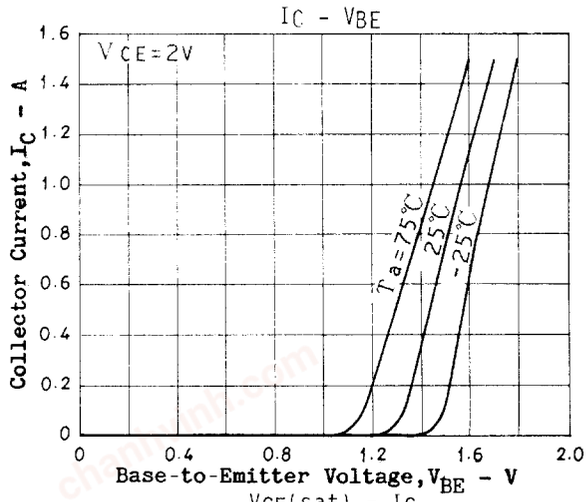
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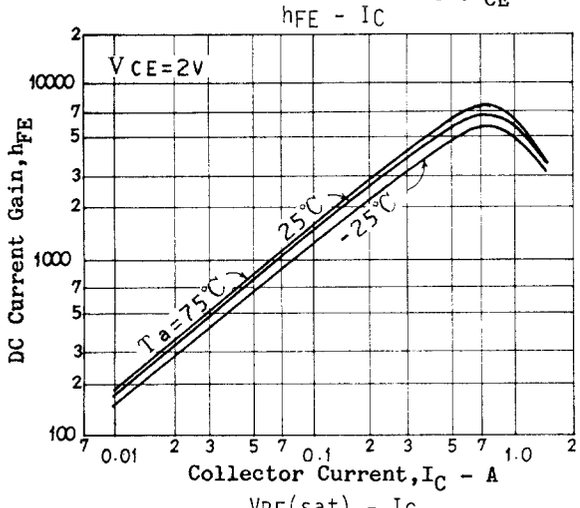
Electrical Connection

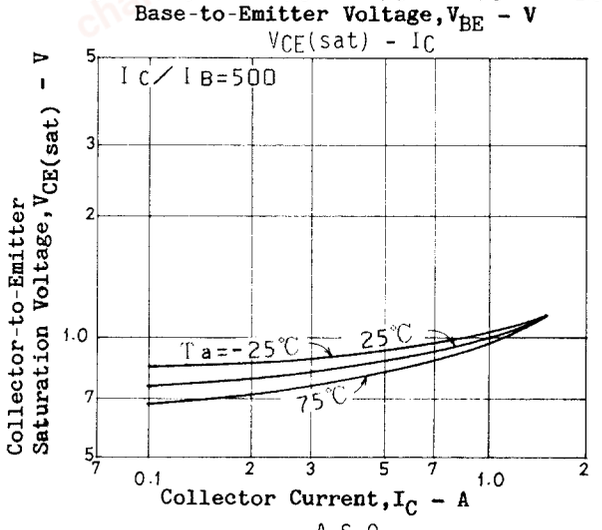


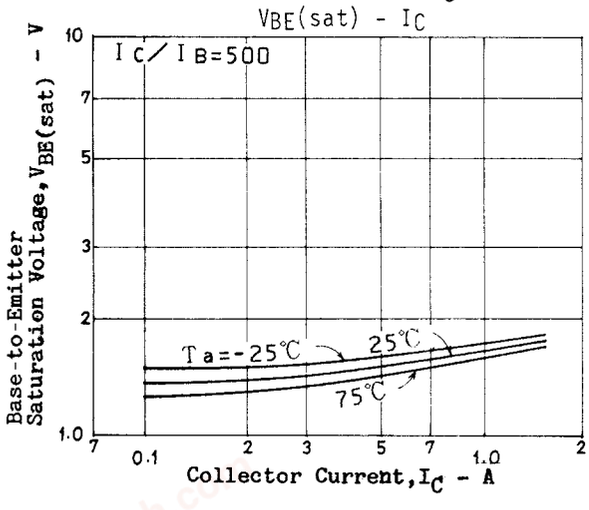
R1 ≒ 5kΩ
R2 ≒ 500Ω

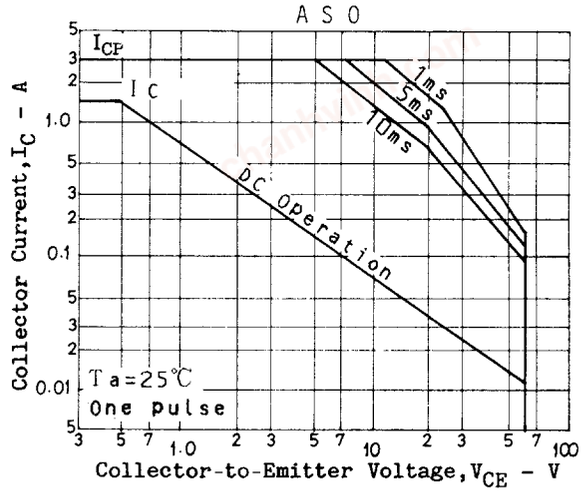




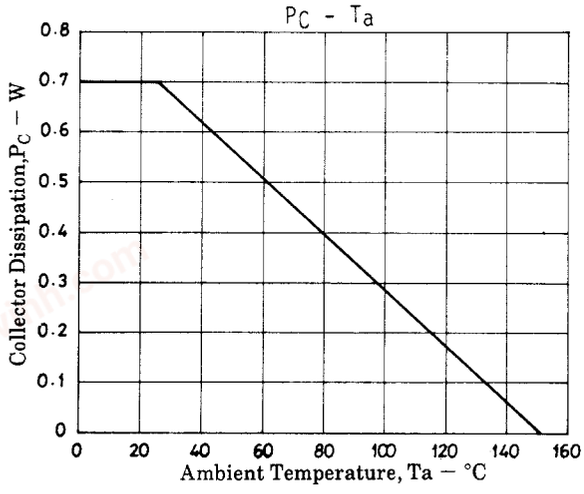








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