

NPN Epitaxial Planar Silicon Darlington Transistor

**SANYO****2SD2635****120V / 2A Driver Applications**

## Applications

- Motor drivers, hammer drivers, and relay drivers.

## Features

- Darlington connection
- High DC current gain.
- DC current gain is less affected by temperature.

## Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	$V_{CB0}$		120	V
Collector-to-Emitter Voltage	$V_{CE0}$		120	V
Collector-to-Base Sustain Voltage	$V_{CE0(sus)}$		120	V
Emitter-to-Base Voltage	$V_{EB0}$		6	V
Collector Current	$I_C$		2	A
Collector Current (pulse)	$I_{CP}$		3	A
Collector Dissipation	$P_C$		1	W
Junction Temperature	$T_J$		150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$		-55 to +150	$^\circ\text{C}$

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

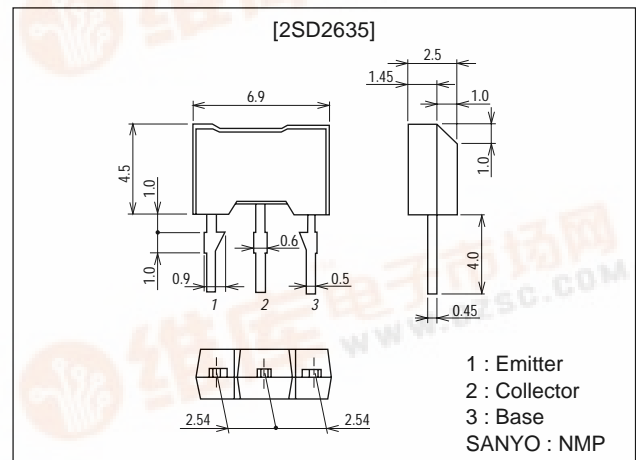
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	$I_{CBO}$	$V_{CB}=100\text{V}, I_E=0$			10	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=5\text{V}, I_C=0$			2.5	mA
DC Current Gain	$h_{FE1}$	$V_{CE}=3\text{V}, I_C=0.5\text{A}$	1000			
	$h_{FE2}$	$V_{CE}=3\text{V}, I_C=1\text{A}$	2000		30000	
	$h_{FE3}$	$V_{CE}=3\text{V}, I_C=0.1\text{A}$	300			

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## Package Dimensions

unit:mm

2064A



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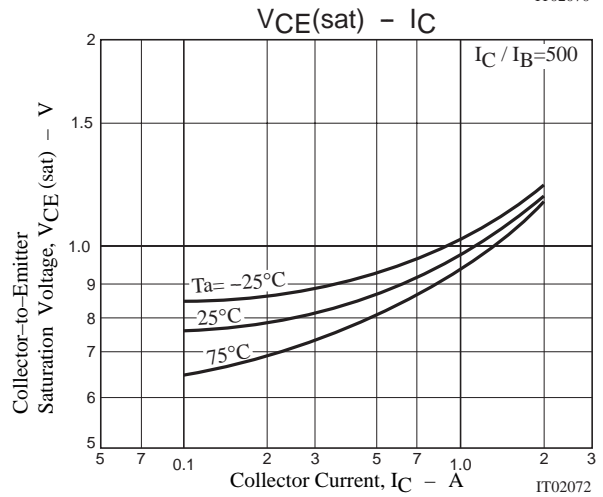
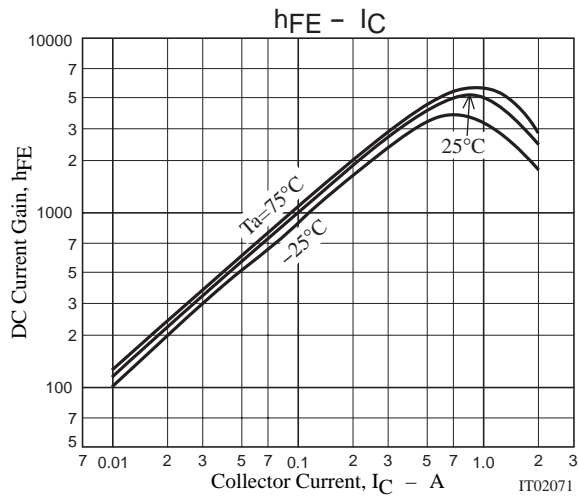
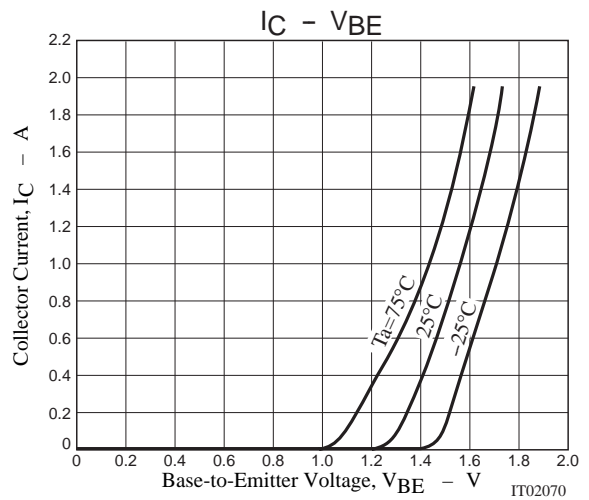
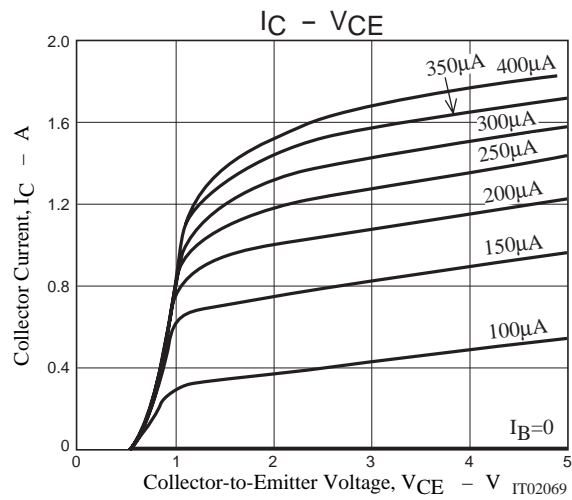
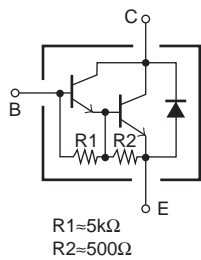
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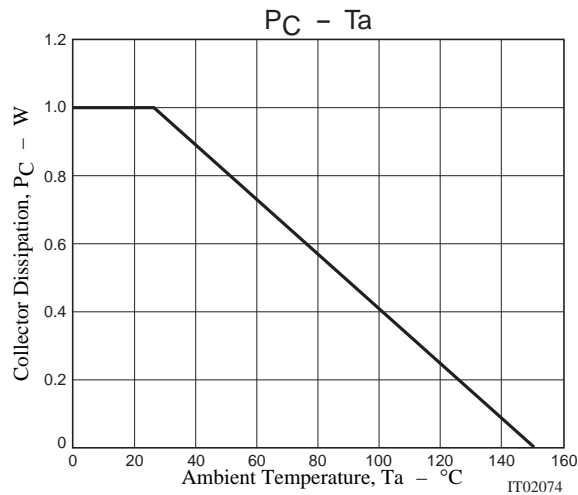
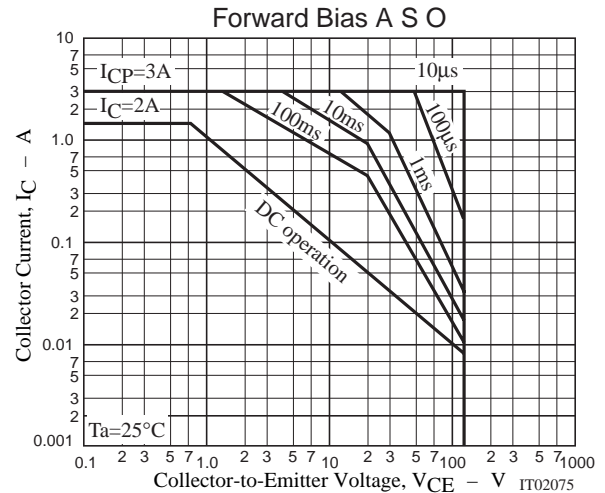
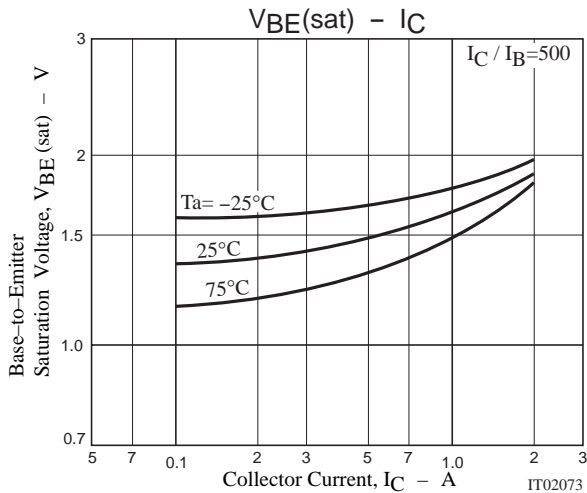
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=1A, I_B=2mA$			1.5	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=1A, I_B=2mA$			2.0	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	120			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=10mA, R_{BE}=\infty$	120			V
Collector-to-Emitter Sustain Voltage	$V_{CEO(sus)}$	$I_C=1A, L=10mH, \text{Clamped}$	120			V

Electrical Connection



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