



2SB1737 — PNP Epitaxial Planar Silicon Darlington Transistor

Driver Applications

Applications

- Suitable for use in control motor drivers, printer hammer drivers, relay drivers, audio output and constant-voltage regulators.

Features

- High DC current gain.
- Wide ASO.
- Low saturation voltage.
- Adoption of MBIT process.

Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V _{CB0}		-180	V
Collector-to-Emitter Voltage	V _{CEO}		-160	V
Emitter-to-Base Voltage	V _{EBO}		-6	V
Collector Current	I _C		-10	A
Collector Current (Pulse)	I _{CP}		-16	A
Collector Dissipation	P _C		2.5	W
		T _c =25°C	110	W
Junction Temperature	T _J		150	°C
Storage Temperature	T _{stg}		-55 to +150	°C

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I _{CB0}	V _{CB} =-180V, I _E =0A			-0.1	mA
Emitter Cutoff Current	I _{EBO}	V _{EB} =-6V, I _C =0A			-10	mA
DC Current Gain	h _{FE}	V _{CE} =-5V, I _C =-6.5A	5000			
Gain-Bandwidth Product	f _T	V _{CE} =-5V, I _C =-6.5A		15		MHz
Collector-to-Emitter Saturation Voltage	V _{CE(sat)}	I _C =-5.5A, I _B =-11mA			-2.0	V
Base-to-Emitter Saturation Voltage	V _{BE(sat)}	I _C =-5.5A, I _B =-11mA			-2.8	V
Collector-to-Base Breakdown Voltage	V _{(BR)CBO}	I _C =-1mA, I _E =0A	-180			V
Collector Sustain Voltage	V _{CEO(SUS)}	I _C =-100mA, I _B =0A	-160			V

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2SB1737

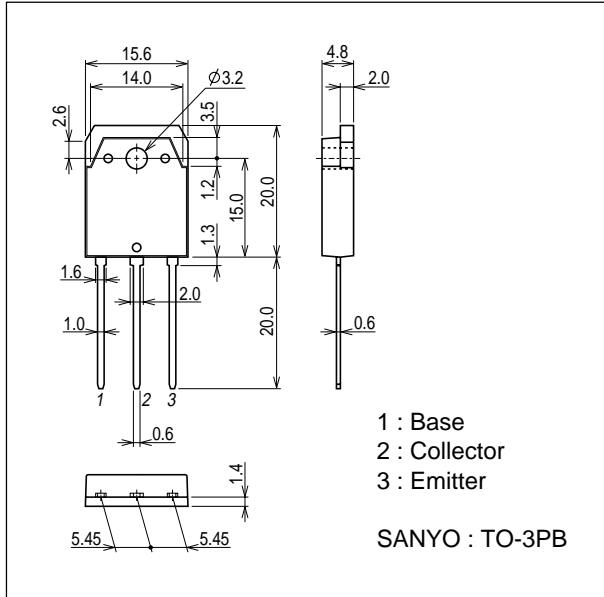
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Turn-ON Time	t_{on}	See specified Test Circuit.		0.9		μs
Storage Time	t_{stg}	See specified Test Circuit.		4.0		μs
Fall Time	t_f	See specified Test Circuit.		3.0		μs

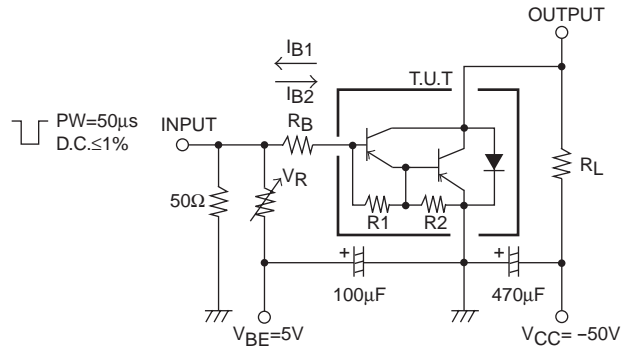
Package Dimensions

unit : mm

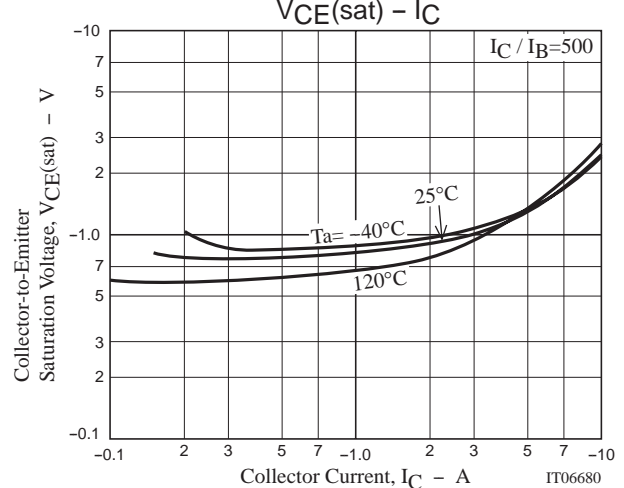
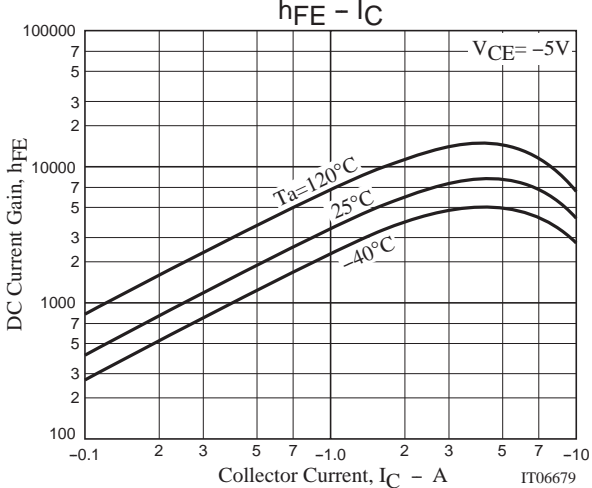
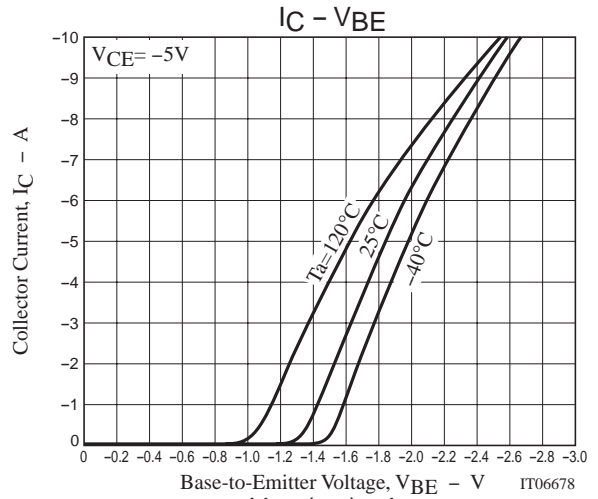
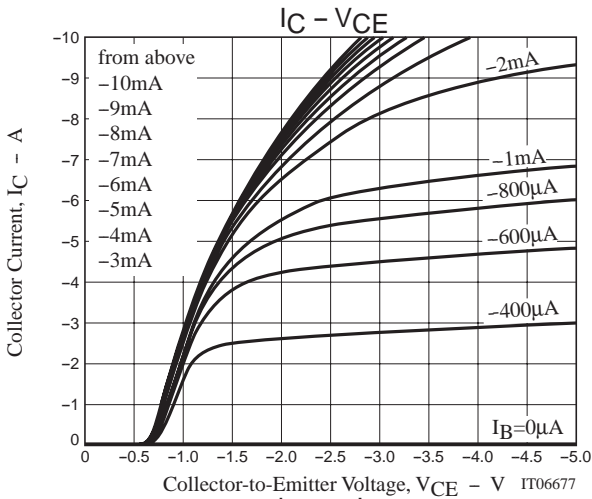
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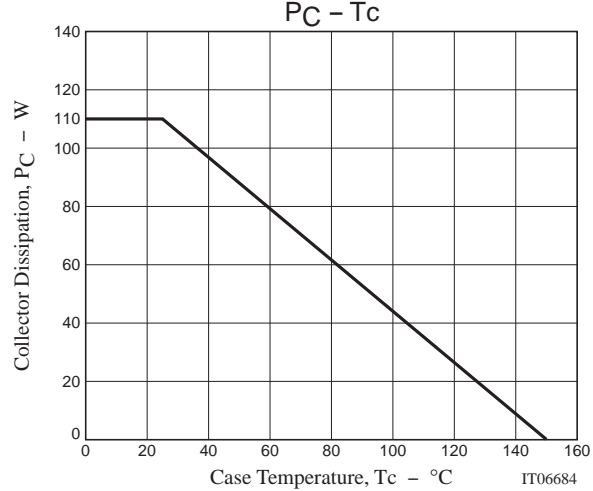
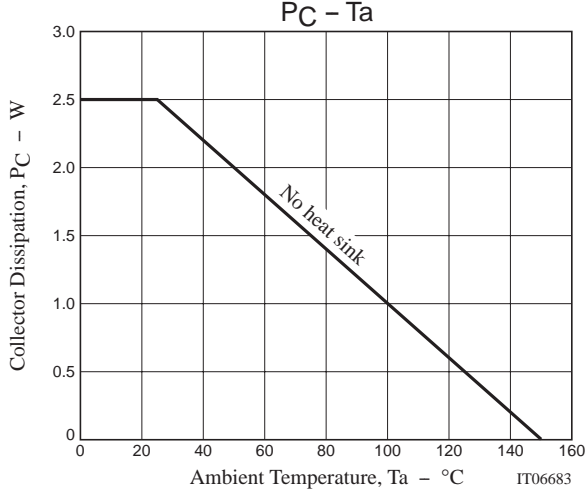
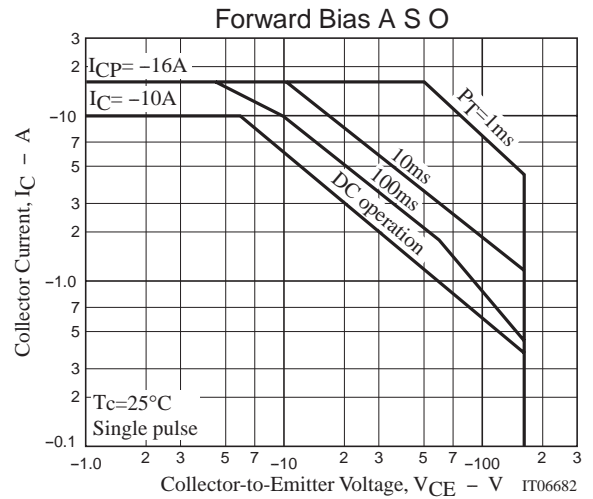
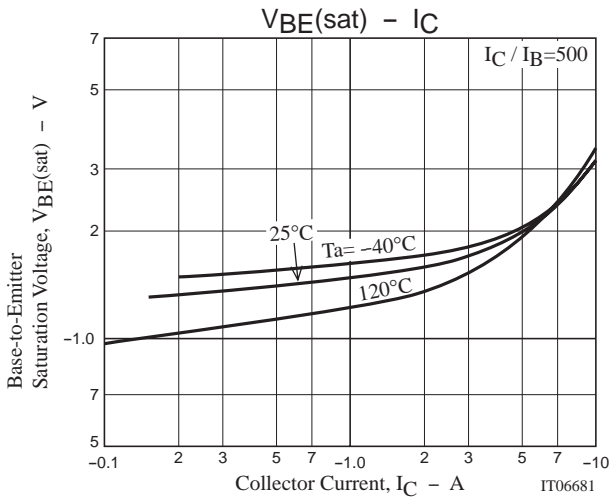


Switching Time Test Circuit



$$I_C = -500I_{B1} = -500I_{B2} = -6.5A$$





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