PNP Epitaxial Planar Silicon Transistor



2SB1405

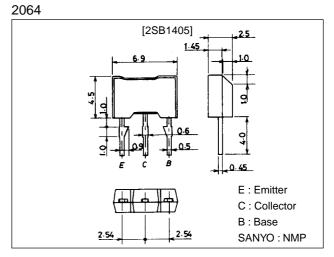
General Driver Applications

Features

- \cdot Darlington connection.
- · High DC current gain.
- \cdot Large current capacity, wide ASO.

Package Dimensions

unit:mm



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}		-50	V
Emitter-to-Base Voltage	V _{EBO}		-10	V
Collector Current	ι _C		-0.7	A
Collector Current (Pulse)	ICP		-2	A
Collector Dissipation	PC		1	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

Electrical Characteristics at Ta = 25°C

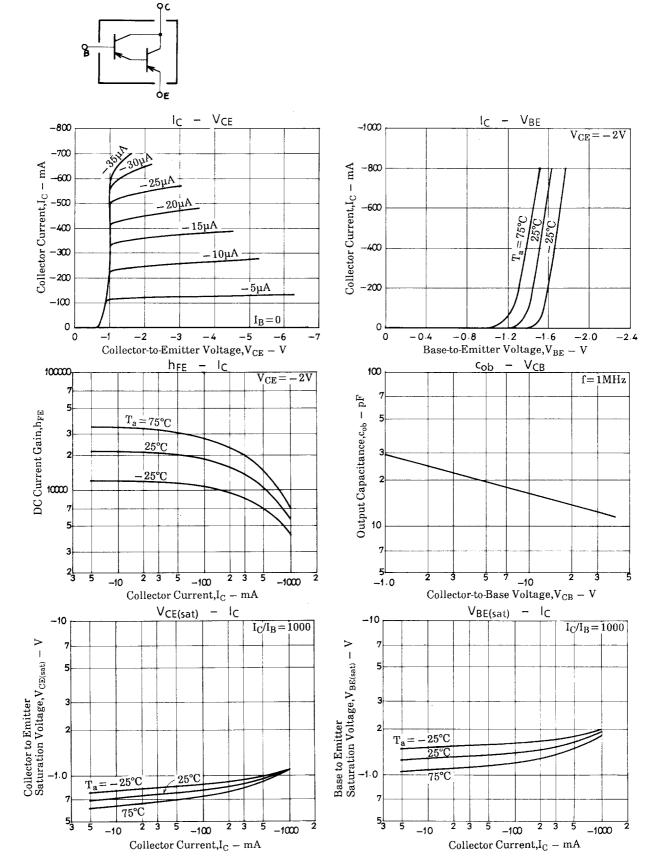
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I _{CBO}	V _{CB} =-40V, I _E =0			-100	nA
Emitter Cutoff Current	I _{EBO}	V _{EB} =-8V, I _C =0			-100	nA
DC Current Gain	h _{FE} 1	V _{CE} =-2V, I _C =-50mA	5000			
	h _{FE} 2	V _{CE} =-2V, I _C =-500mA	3000			
Gain-Bandwidth Product	fT	V _{CE} =-5V, I _C =-50mA		170		MHz
Output Capacitance	Cob	V _{CB} =-10V, f=1MHz		18		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		-1.4	-2.0	V

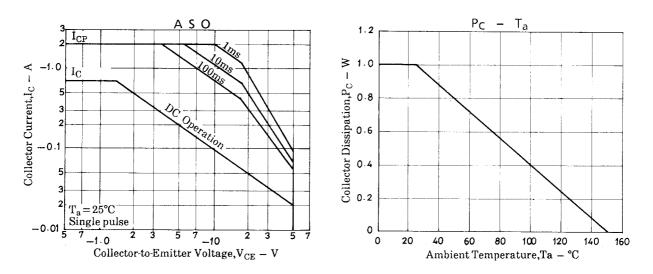
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Parameter	Symbol	Conditions	Ratings			Unit
	Symbol		min	typ	max	Unit
Collector-to-Base Breakdown Voltage	V _(BR) CBO	I _C =-10μA, I _E =0	-80			V
Collector-to-Emitter Breakdown Voltage	V(BR)CEO	I _C =−1mA, R _{BE} =∞	-50			V
Emitter-to-Base Breakdown Voltage	V(BR)EBO	I _E =-10μA, I _C =0	-10			V

Electrical Connection





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