PNP/NPN Epitaxial Planar Silicon Transistors



2SB1510/2SD2284

60V/3A Driver Applications

Applications

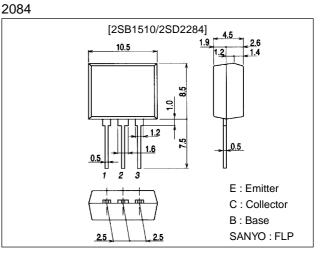
· Motor drivers, hammer drivers, relay drivers.

Features

- · High DC current gain.
- \cdot Good dependence of DC current gain.

Package Dimensions

unit:mm



():2SB1510

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	VCEO		(–)60	V
Emitter-to-Base Voltage	VEBO		(-)6	V
Collector Current	IC		(-)3	A
Collector Current (Pulse)	ICP		(-)6	A
Collector Dissipation	PC		1.5	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +125	°C

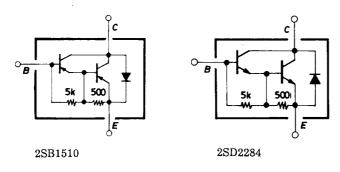
Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Unit
Collector Cutoff Current	ICBO	V _{CB} =(-)60V, I _E =0			(–)10	μΑ
Emitter Cutoff Current	IEBO	V _{EB} =(-)5V, I _C =0			(–)2.5	mA
DC Current Gain	hFE1	V _{CE} =(-)2V, I _C =(-)1A	2000			
	h _{FE} 2	V _{CE} =(-)2V, I _C =(-)2A	1000			
Collector-to-Emitter Saturation Voltage	V _{CE(sat)}	I _C =(-)2A, I _B =(-)4mA			(–)1.5	V
Base-to-Emitter Saturation Voltage	V _{BE(sat)}	I _C =(-)2A, I _B =(-)4mA			(–)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 =(−)10mA, R _{BE} =∞	(–)60			V

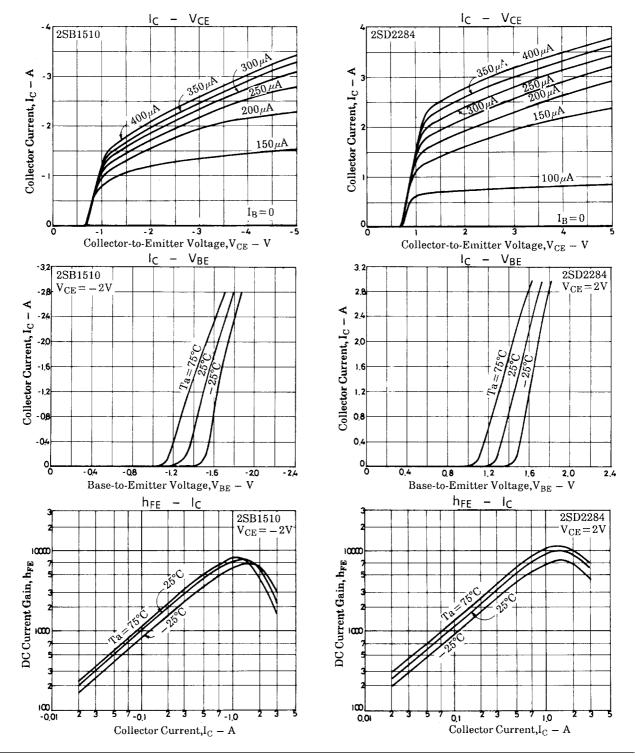
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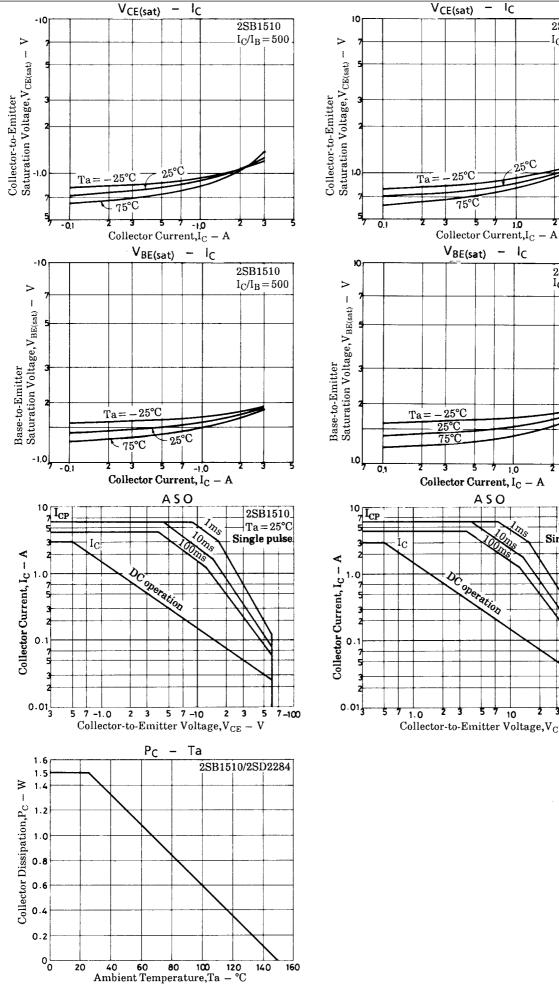
Electrical Connection



Unit (resistance : Ω)



2SB1510/2SD2284



<u>−25°C</u> 5 1.0 Collector Current, I_C – A ASO 2SD2284 Ta=25°C Qs Single pulse DC operation 3 3 100

١c

C

Ιc

2SD2284

 $I_{C}/I_{B} = 500$

 $2SD2284 I_C/I_B = 500$

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5 7 10 Collector-to-Emitter Voltage, $V_{CE} - V$

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