

No.927E

2SB885/2SD1195

PNP/NPN Planar Silicon Darlington Transistors

Driver Applications

Applications

- Motor drivers, printer hammer drivers, relay drivers, voltage regulator control.

Features

- High DC current gain.
- High current capacity and wide ASO.
- Low saturation voltage.

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Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Value	unit
Collector-to-Base Voltage	V _{CB0}	(-)110	V
Collector-to-Emitter Voltage	V _{CEO}	(-)100	V
Emitter-to-Base Voltage	V _{EBO}	(-)6	V
Collector Current	I _C	(-)5	A
Collector Current (Pulse)	I _{CP}	(-)8	A
Collector Dissipation	P _C	1.75	W
		35	W
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55 to +150	°C

T_c = 25°C

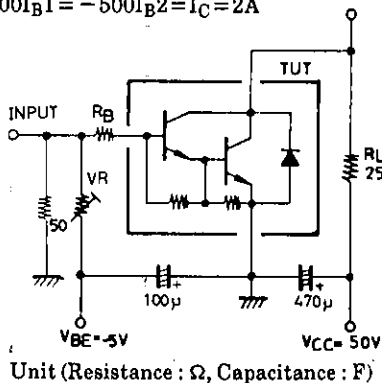
Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Test Conditions	min	typ	max	unit
Collector Cutoff Current	I _{CBO}	V _{CB} = (-)80V, I _E = 0			(-)0.1	mA
Emitter Cutoff Current	I _{EBO}	V _{EB} = (-)5V, I _C = 0			(-)3.0	mA
DC Current Gain	h _{FE}	V _{CE} = (-)3V, I _C = (-)2.5A	1500	4000		
Gain Bandwidth Product	f _T	V _{CE} = (-)5V, I _C = (-)2.5A		20		MHz
C-E Saturation Voltage	V _{CE(sat)}	I _C = (-)2.5A, I _B = (-)5mA		0.9(-)1.5		V
					(-1.0)	
B-E Saturation Voltage	V _{BE(sat)}	I _C = (-)2.5A, I _B = (-)5mA			(-)2.0	V
C-B Breakdown Voltage	V _{(BR)CBO}	I _C = (-)5mA, I _E = 0	(-)110			V
C-E Breakdown Voltage	V _{(BR)CEO}	I _C = (-)50mA, R _{BE} = ∞	(-)100			V
Rise Time	t _{on}	See specified Test Circuit.	(0.7)0.6			μs
Storage Time	t _{stg}	"	(1.3)4.8			μs
Fall Time	t _f	"	(1.5)1.6			μs

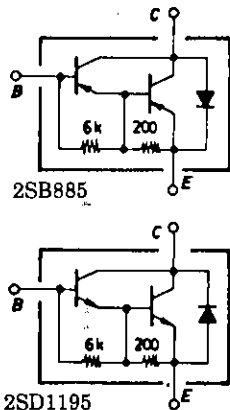
Specified Test Circuit

(For PNP, the polarity is reversed.)

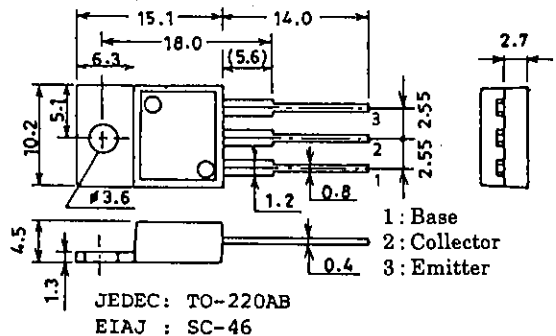
PW = 50μs, Duty Cycle ≤ 1%
500I_{B1} = -500I_{B2} = I_C = 2A

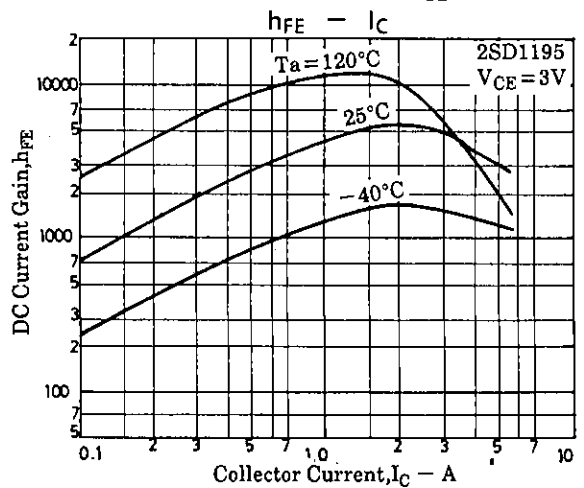
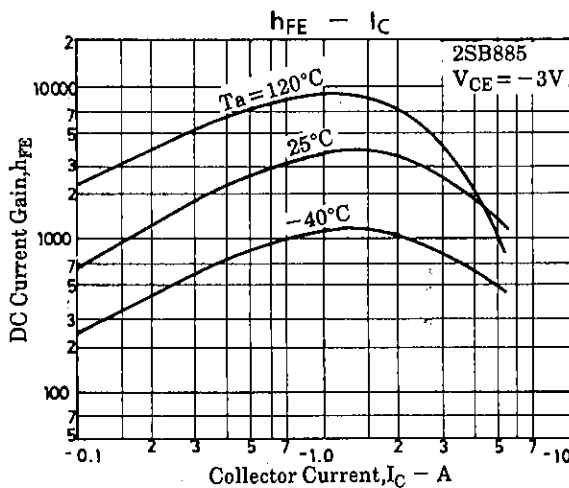
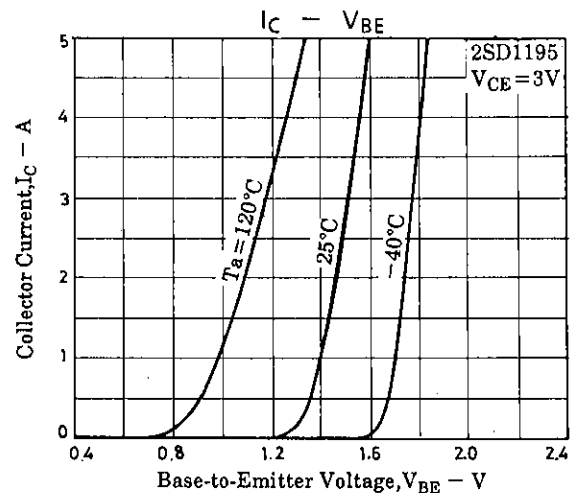
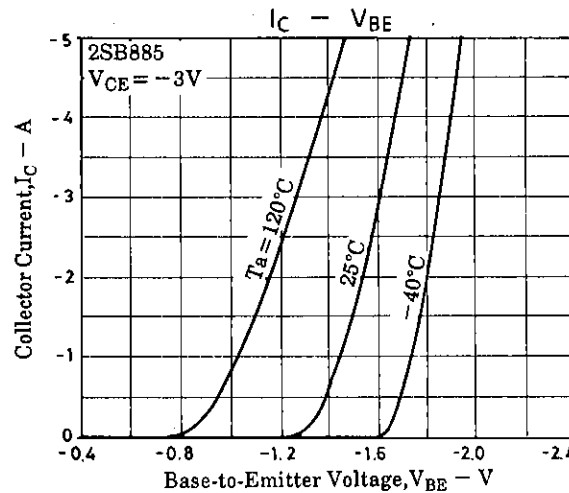
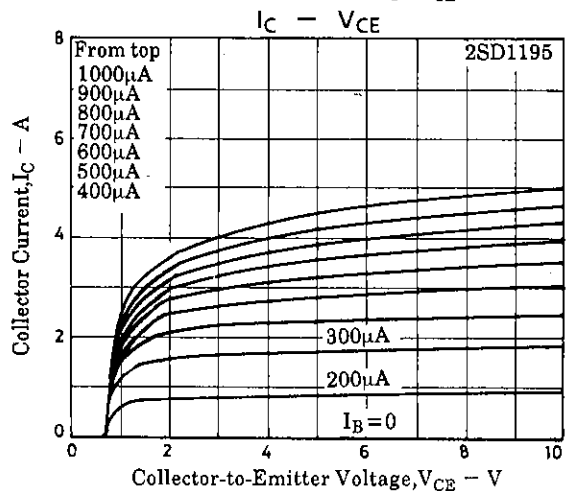
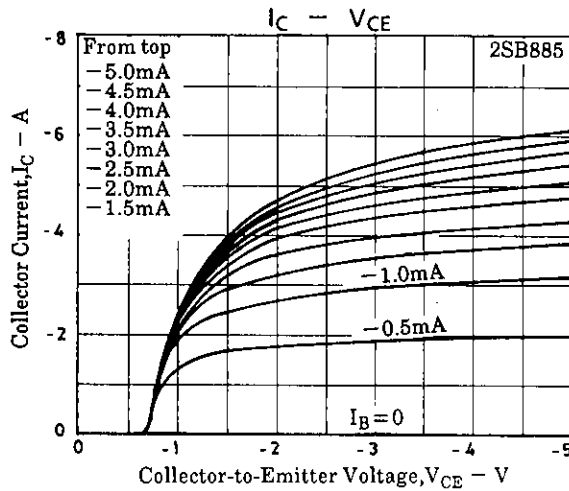
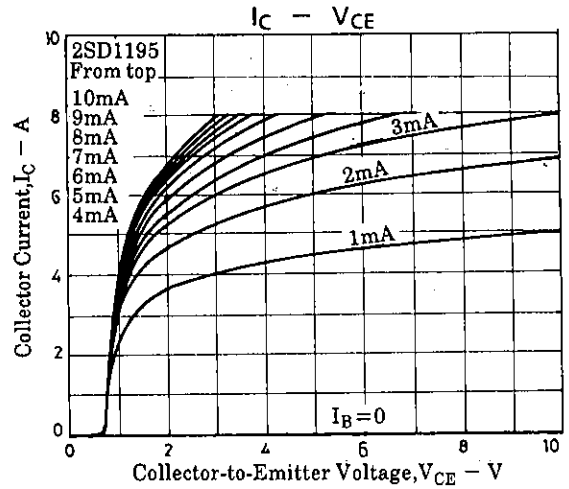
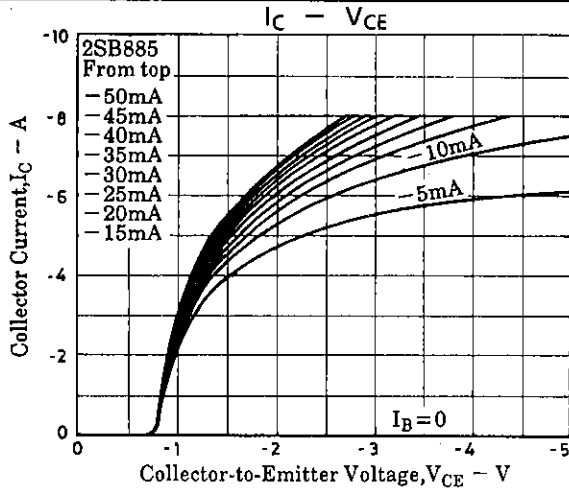


Electrical Connection

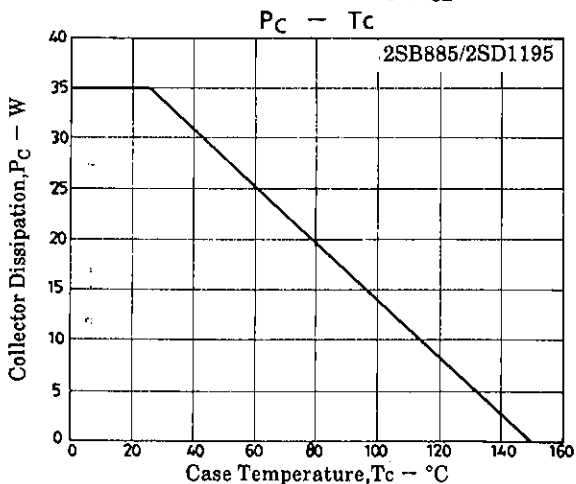
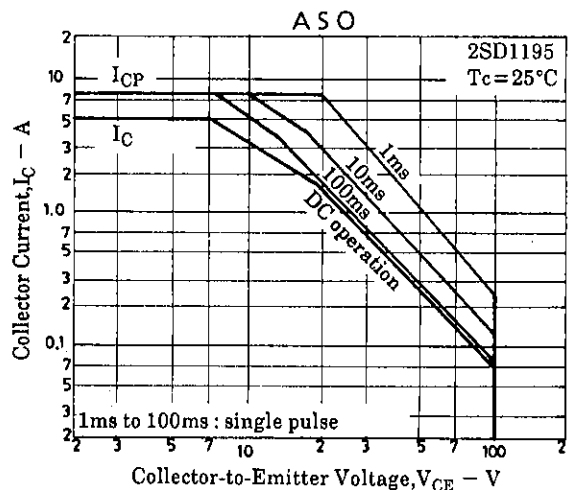
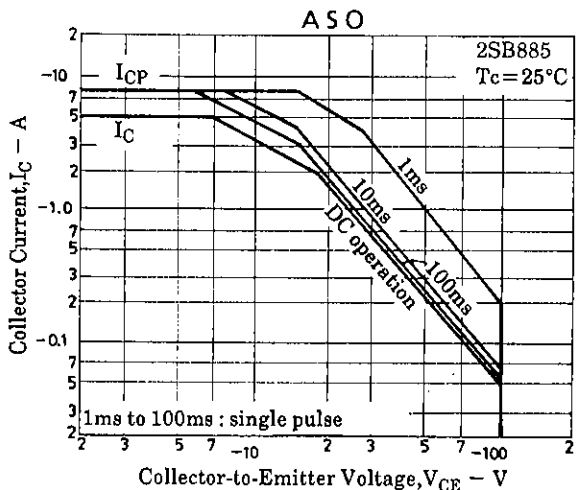
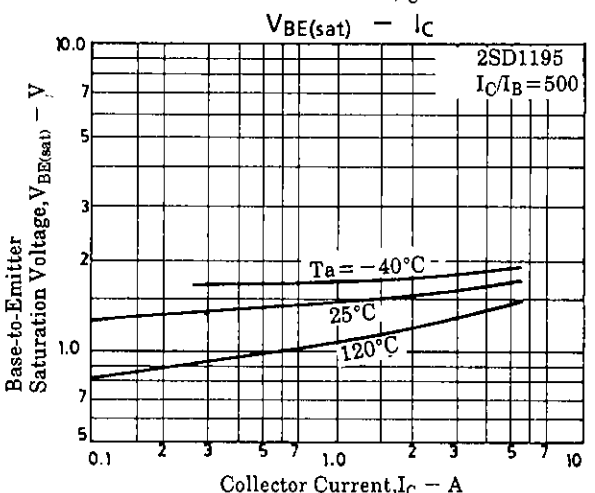
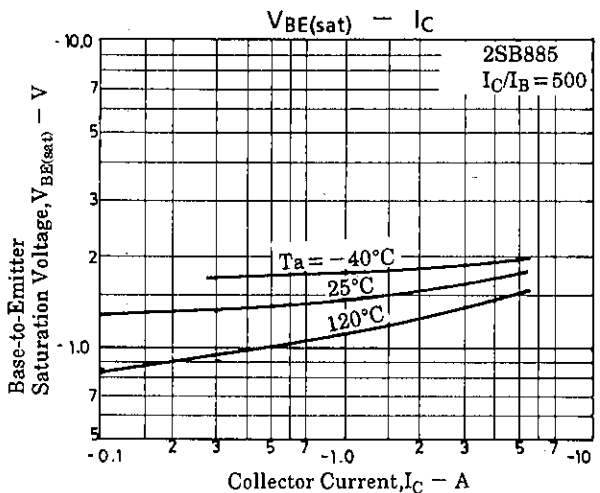
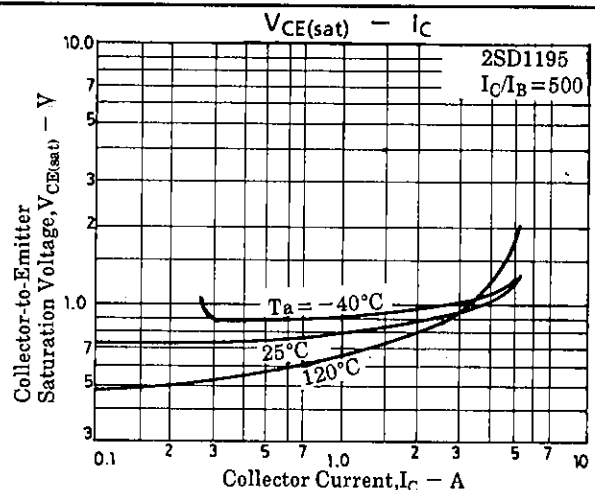
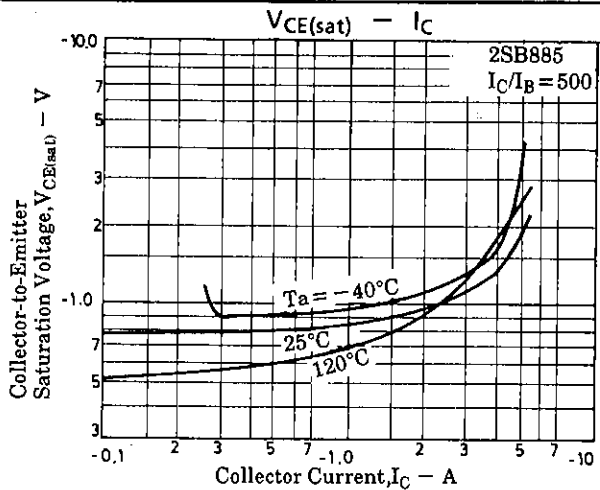


Package Dimensions 2010C
(unit : mm)





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