

	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.

(): 2SB885

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

			unit
Collector-to-Base Voltage	V_{CBO}	(-)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	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

$T_c = 25^\circ\text{C}$

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

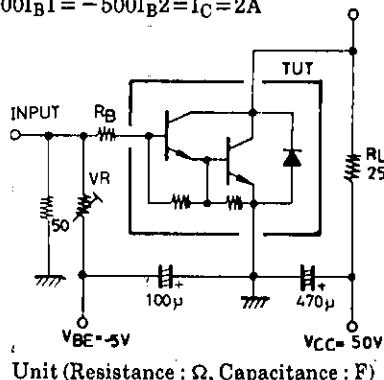
			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = (-)80\text{V}, I_E = 0$		(-)0.1		mA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = (-)5\text{V}, I_C = 0$		(-)3.0		mA
DC Current Gain	h_{FE}	$V_{CE} = (-)3\text{V}, I_C = (-)2.5\text{A}$	1500	4000		
Gain Bandwidth Product	f_T	$V_{CE} = (-)5\text{V}, I_C = (-)2.5\text{A}$		20		MHz
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = (-)2.5\text{A}, I_B = (-)5\text{mA}$		0.9(-)1.5		V
				(-1.0)		
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = (-)2.5\text{A}, I_B = (-)5\text{mA}$		(-)2.0		V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = (-)5\text{mA}, I_E = 0$	(-)110			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = (-)50\text{mA}, R_{BE} = \infty$	(-)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

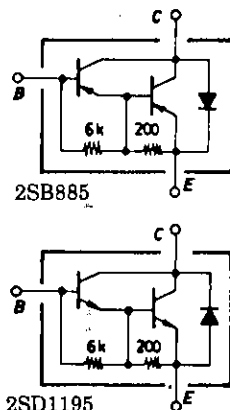
(For PNP, the polarity is reversed.)

PW = 50 μs , Duty Cycle $\leq 1\%$

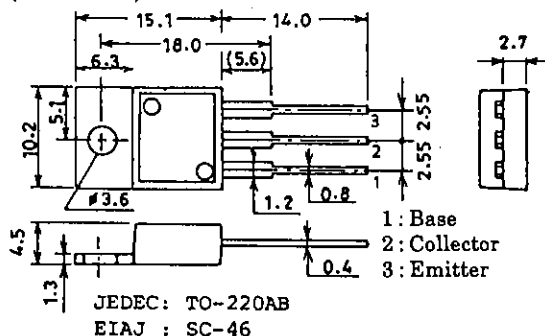
500I_{B1} = -500I_{B2} = I_C = 2A



Electrical Connection



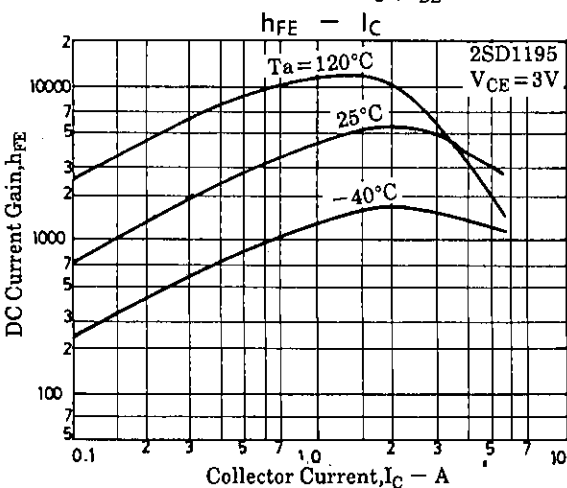
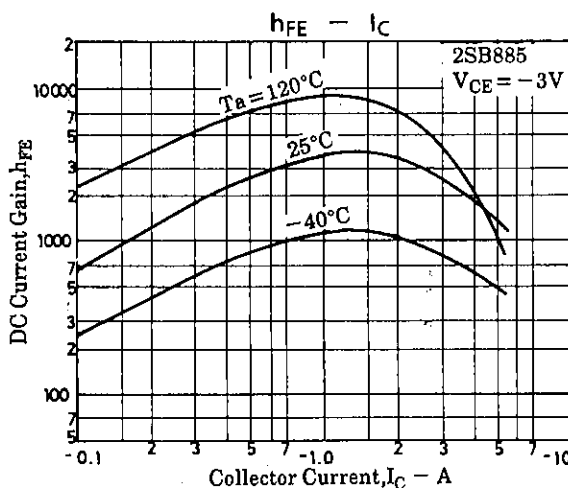
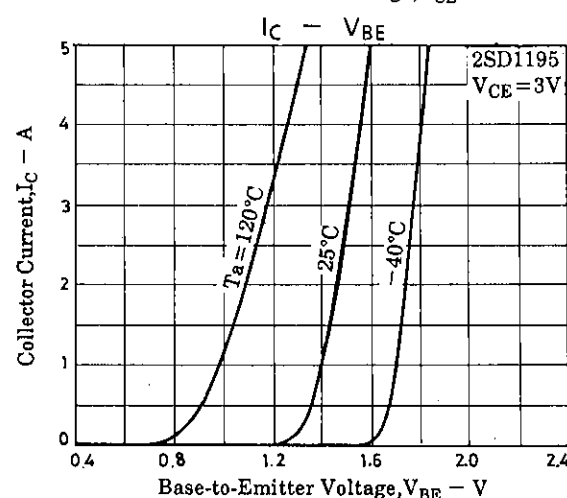
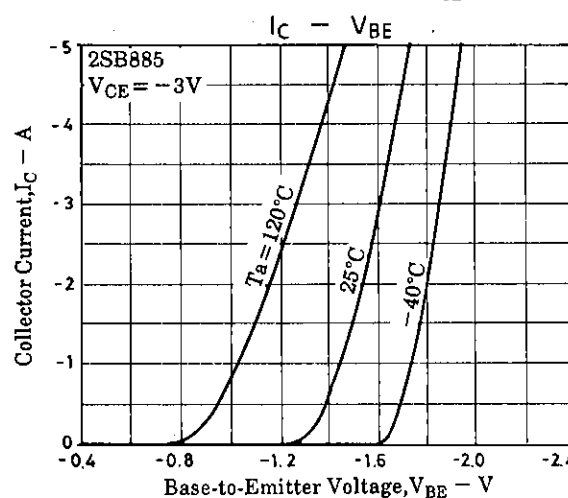
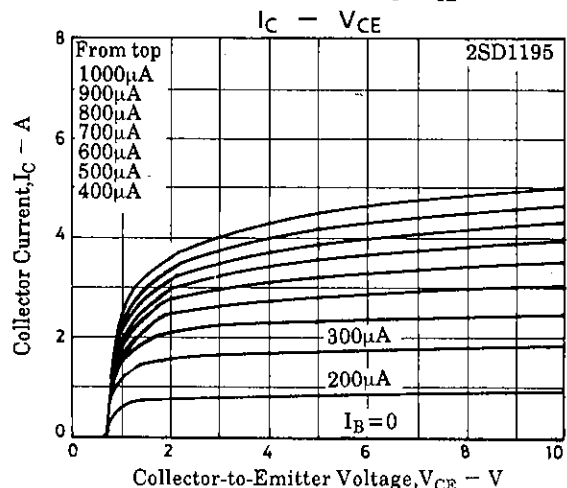
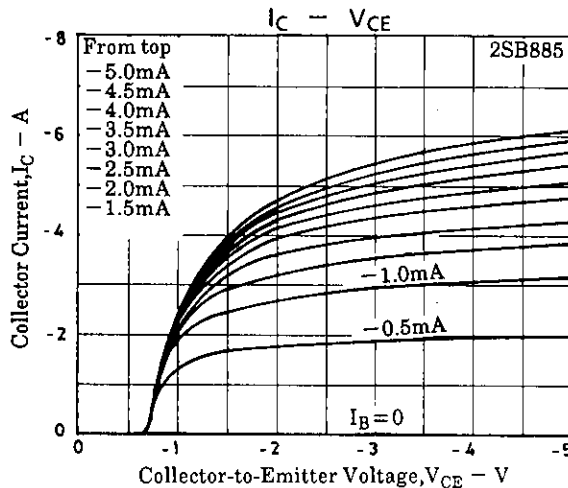
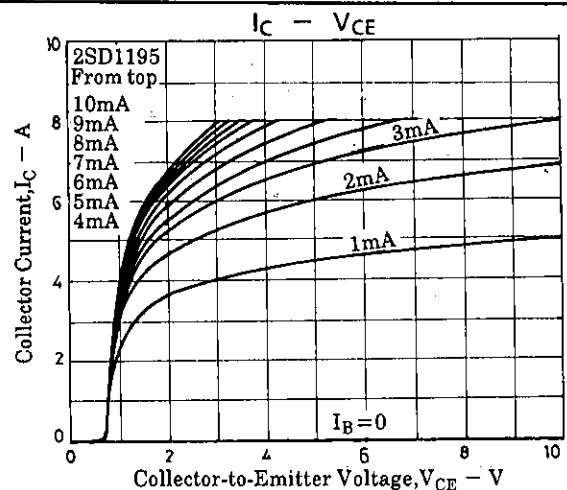
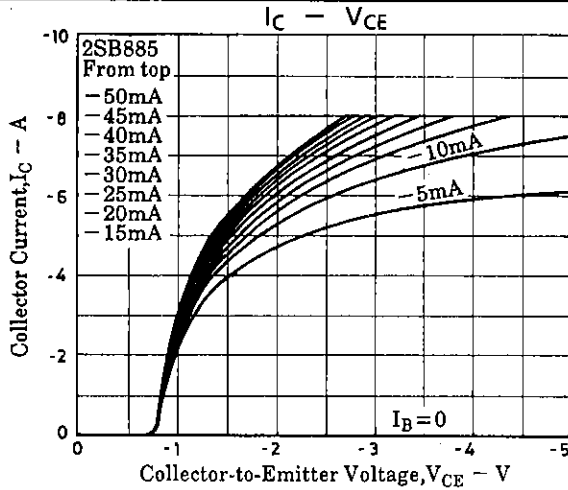
Package Dimensions 2010C (unit : mm)



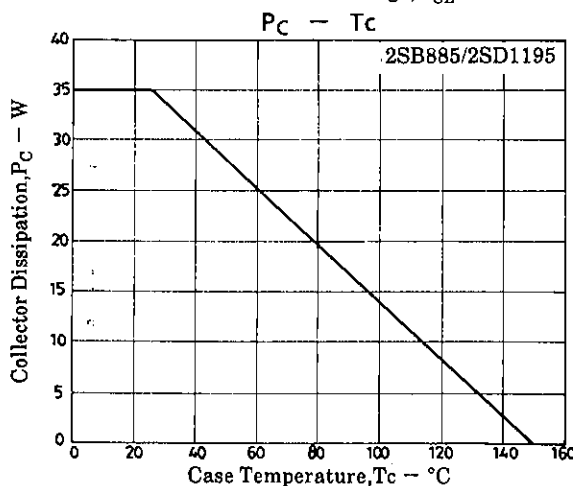
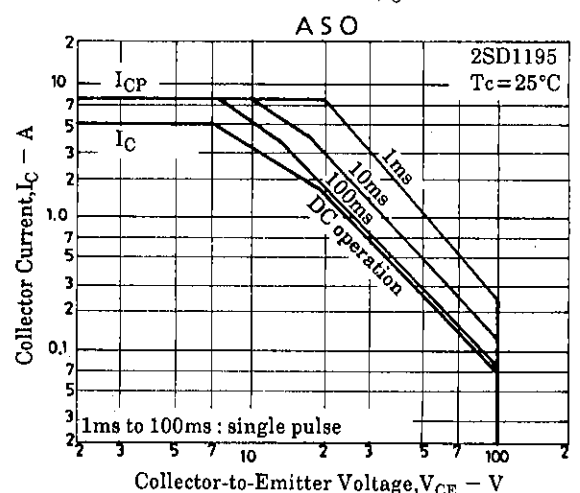
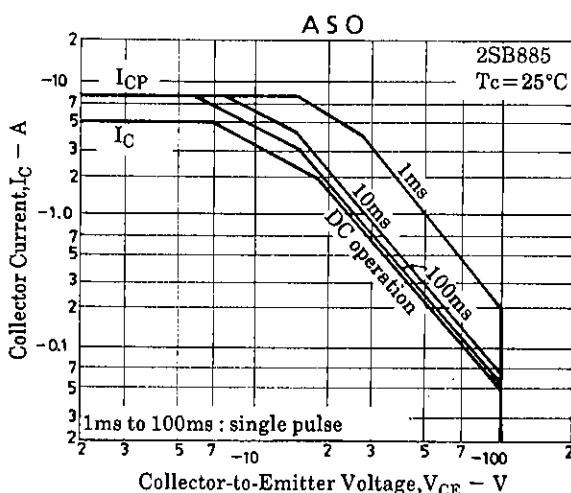
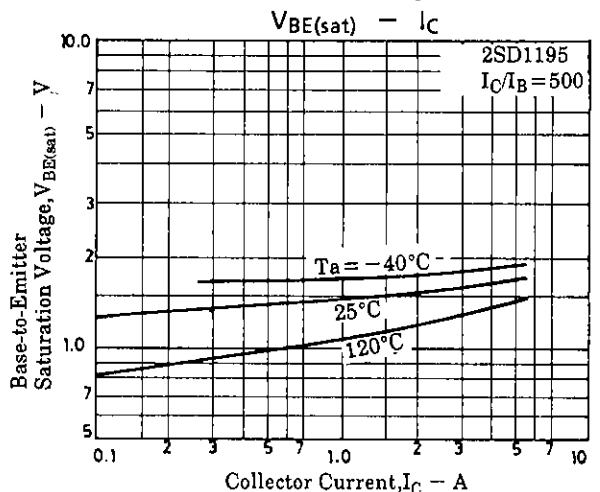
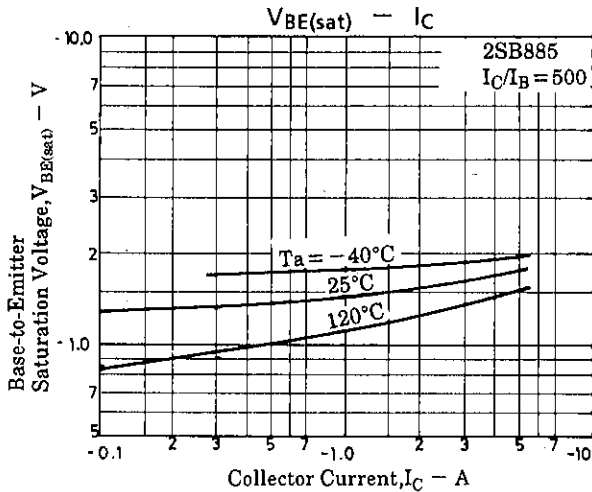
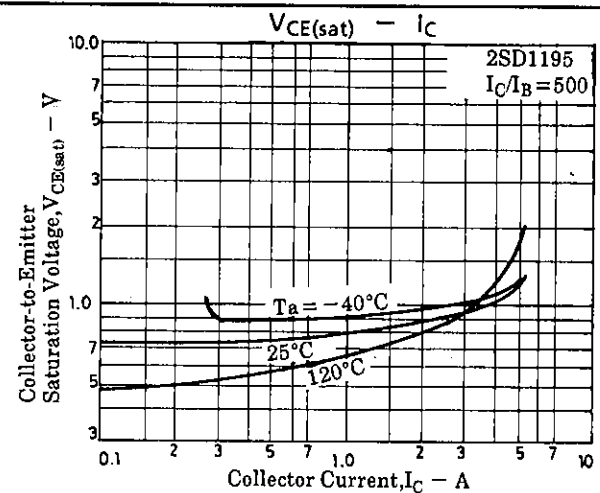
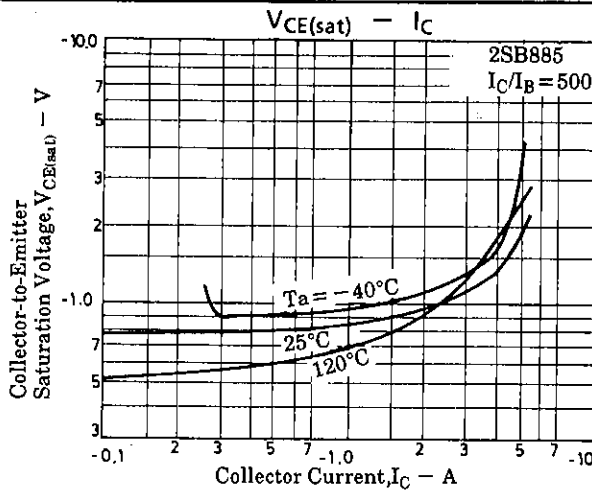
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