

**SANYO**

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  $T_a = 25^\circ\text{C}$** 

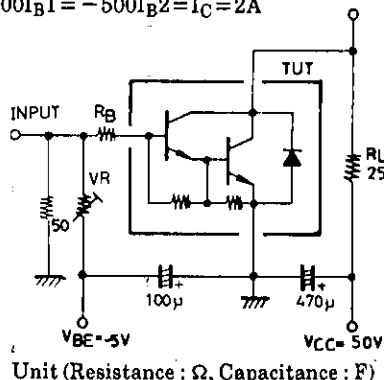
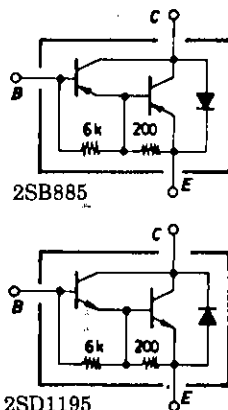
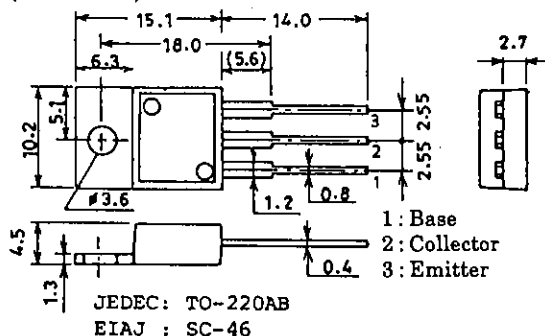
			unit
Collector-to-Base Voltage	$V_{CBO}$	(- )110	V
Collector-to-Emitter Voltage	$V_{CEO}$	(- )100	V
Emitter-to-Base Voltage	$V_{EBO}$	(- )6	V
Collector Current	$I_C$	(- )5	A
Collector Current (Pulse)	$I_{CP}$	(- )8	A
Collector Dissipation	$P_C$	1.75	W
		35	W
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

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

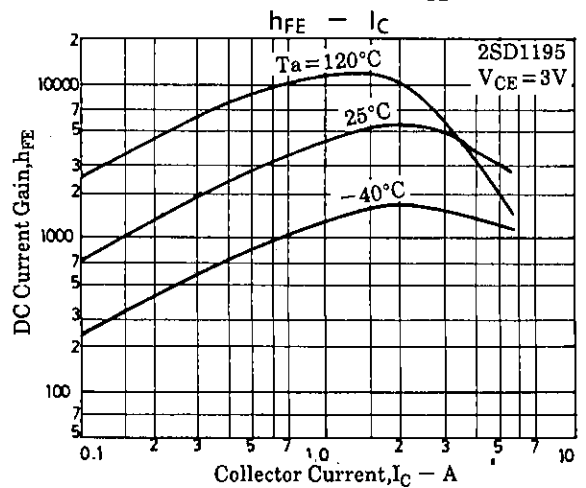
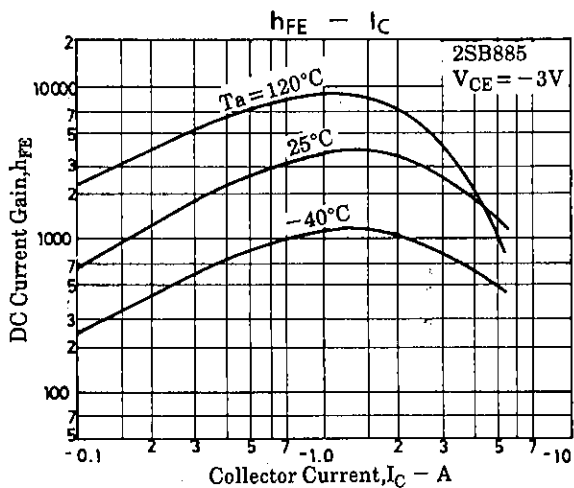
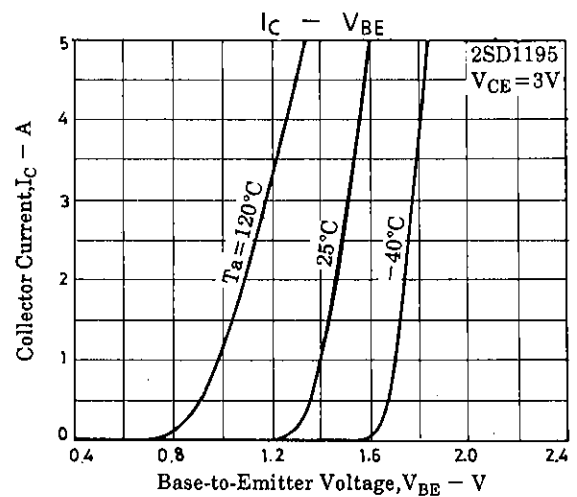
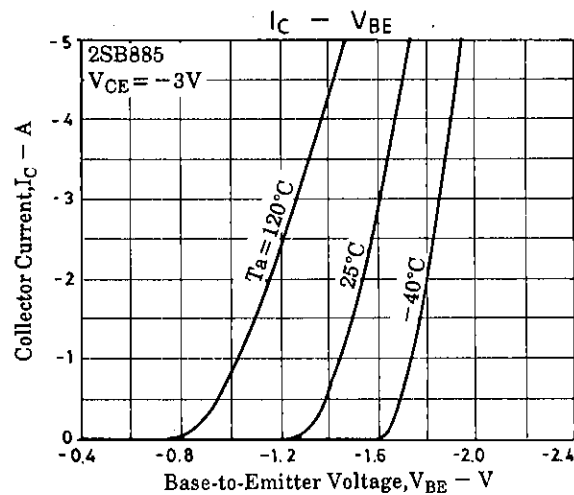
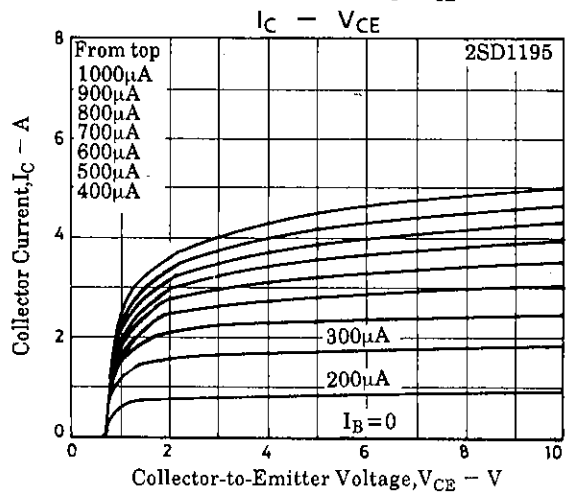
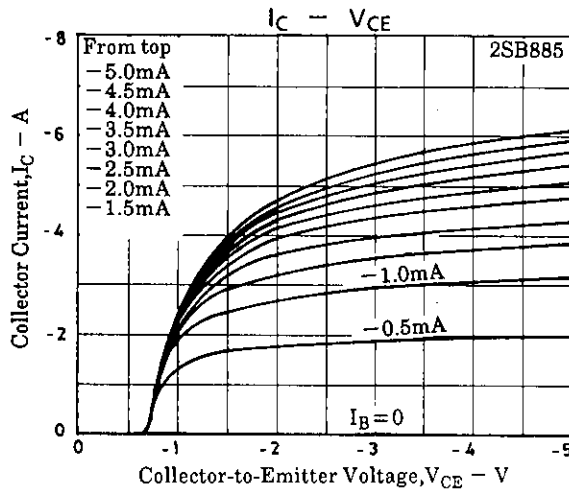
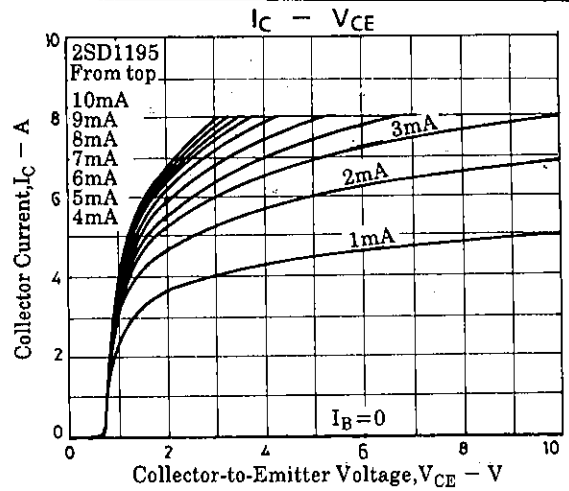
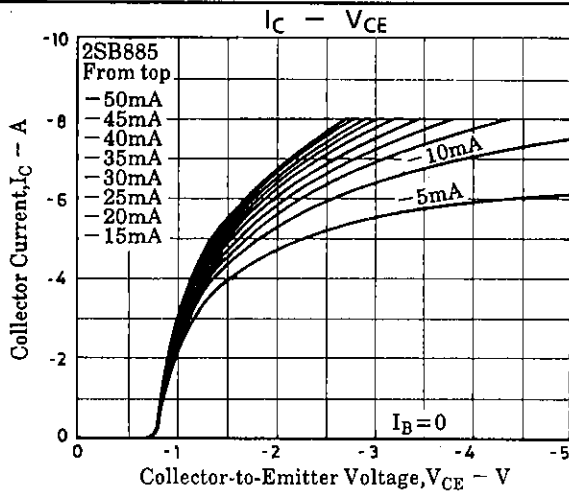
			min	typ	max	unit
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = (-)80\text{V}, I_E = 0$		(- )0.1		mA
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = (-)5\text{V}, I_C = 0$		(- )3.0		mA
DC Current Gain	$h_{FE}$	$V_{CE} = (-)3\text{V}, I_C = (-)2.5\text{A}$	1500	4000		
Gain Bandwidth Product	$f_T$	$V_{CE} = (-)5\text{V}, I_C = (-)2.5\text{A}$		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			$\mu\text{s}$
Storage Time	$t_{stg}$	"	(1.3)4.8			$\mu\text{s}$
Fall Time	$t_f$	"	(1.5)1.6			$\mu\text{s}$

**Specified Test Circuit**

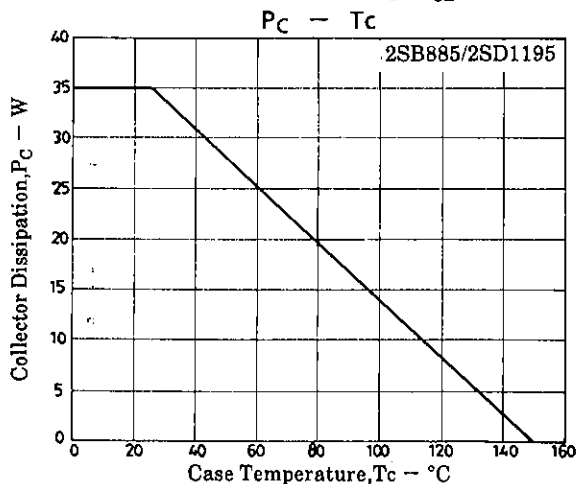
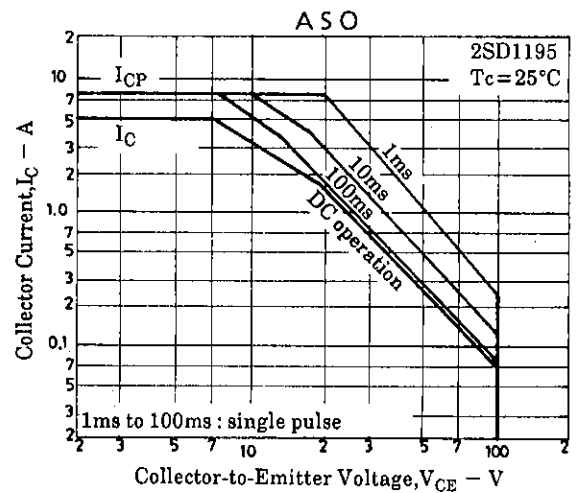
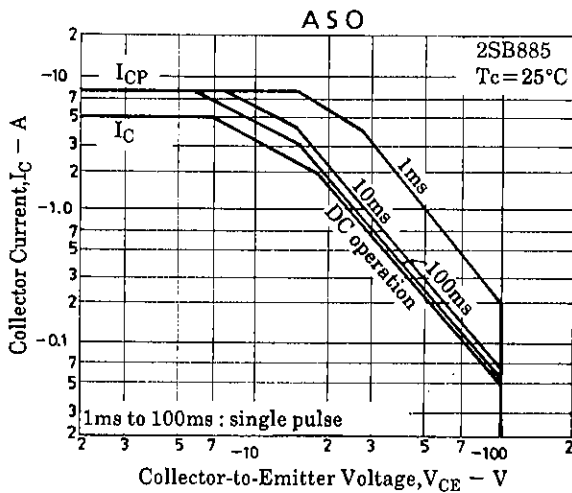
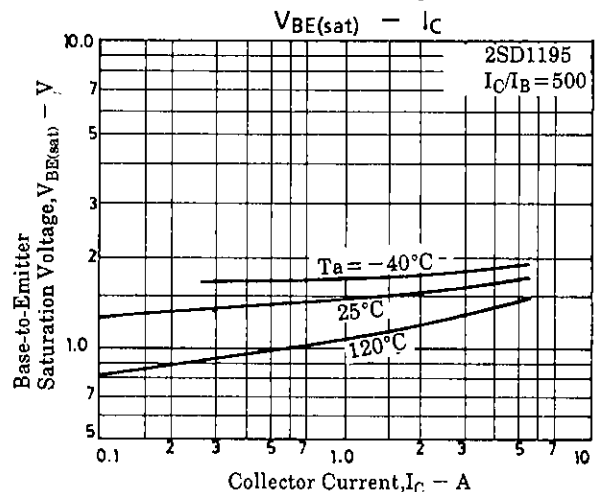
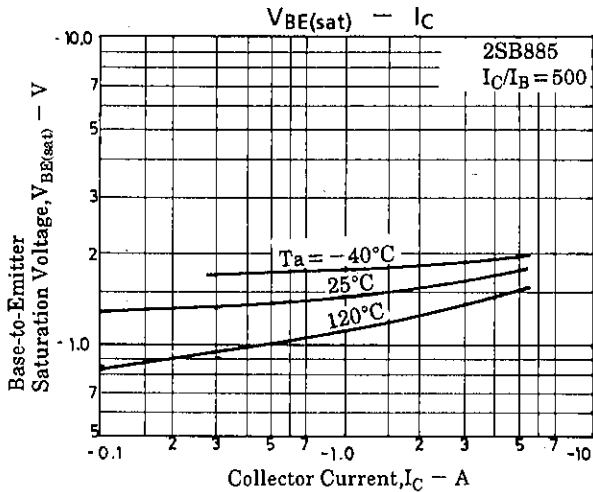
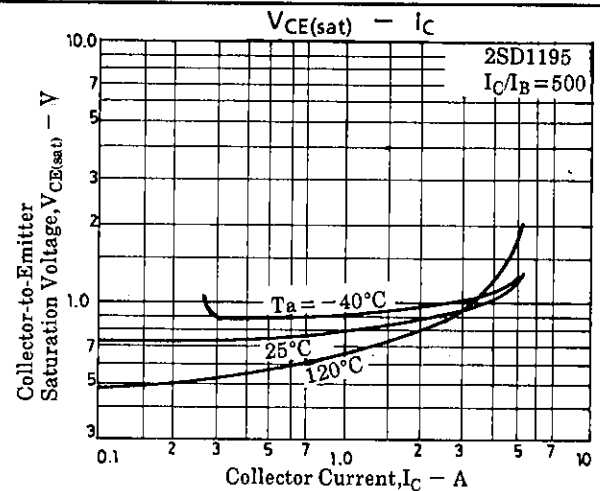
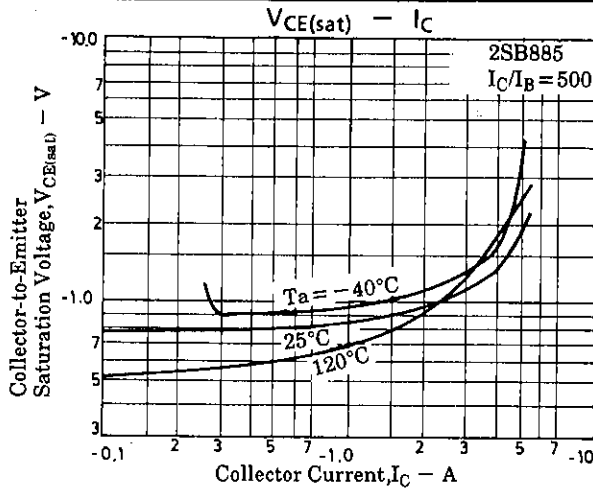
(For PNP, the polarity is reversed.)

PW = 50 $\mu\text{s}$ , Duty Cycle  $\leq 1\%$ 500I<sub>B1</sub> = -500I<sub>B2</sub> = I<sub>C</sub> = 2A**Electrical Connection****Package Dimensions 2010C**  
(unit : mm)**SANYO Electric Co., Ltd. Semiconductor Business Headquarters**

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