

<b>SANYO</b>	No.925E	<b>2SB881/2SD1191</b>
	PNP/NPN Epitaxial 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.

( ) : 2SB881

**Absolute Maximum Ratings at Ta = 25°C**

				unit
Collector-to-Base Voltage	V <sub>CB0</sub>	(-)	70	V
Collector-to-Emitter Voltage	V <sub>CE0</sub>	(-)	60	V
Emitter-to-Base Voltage	V <sub>EBO</sub>	(-)	6	V
Collector Current	I <sub>C</sub>	(-)	7	A
Collector Current (Pulse)	I <sub>CP</sub>	(-)	10	A
Collector Dissipation	P <sub>C</sub>		1.75	W
			35	W
Junction Temperature	T <sub>j</sub>		150	°C
Storage Temperature	T <sub>stg</sub>		-55 to +150	°C

T<sub>c</sub> = 25°C

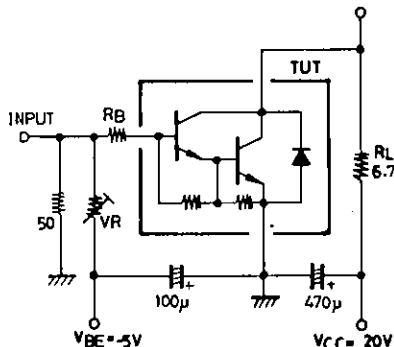
**Electrical Characteristics at Ta = 25°C**

			min	typ	max	unit
Collector Cutoff Current	I <sub>CB0</sub>	V <sub>CB</sub> = (-)40V, I <sub>E</sub> = 0			(-)0.1	mA
Emitter Cutoff Current	I <sub>EBO</sub>	V <sub>EB</sub> = (-)5V, I <sub>C</sub> = 0			(-)3.0	mA
DC Current Gain	h <sub>FE</sub>	V <sub>CE</sub> = (-)2V, I <sub>C</sub> = (-)3.5A	2000	5000		
Gain Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> = (-)5V, I <sub>C</sub> = (-)3.5A		20		MHz
C-E Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = (-)3.5A, I <sub>B</sub> = (-)7mA		0.9	(-)1.5	V
					(-1.0)	
B-E Saturation Voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = (-)3.5A, I <sub>B</sub> = (-)7mA			(-)2.0	V
C-B Breakdown Voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> = (-)5mA, I <sub>E</sub> = 0	(-)70			V
C-E Breakdown Voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = (-)50mA, R <sub>BE</sub> = ∞	(-)60			V
Rise Time	t <sub>on</sub>	See specified Test Circuit.	(0.5)	0.6		μs
Storage Time	t <sub>stg</sub>	"	(1.5)	3.0		μs
Fall Time	t <sub>f</sub>	"	(1.4)	1.7		μs

**Specified Test Circuit**

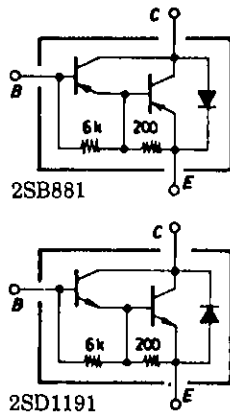
(For PNP, the polarity is reversed.)

PW = 50μs, Duty Cycle ≤ 1%  
500I<sub>B1</sub> = -500I<sub>B2</sub> = I<sub>C</sub> = 3A

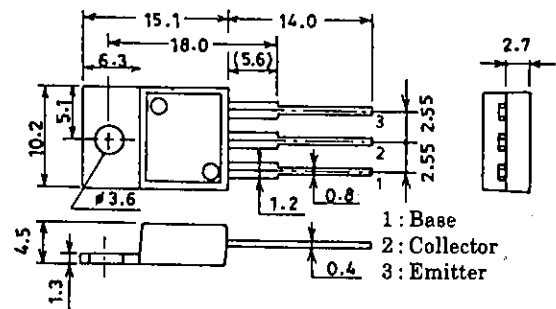


Unit (Resistance : Ω, Capacitance : F)

**Electrical Connection**



**Package Dimensions 2010C**  
(unit : mm)

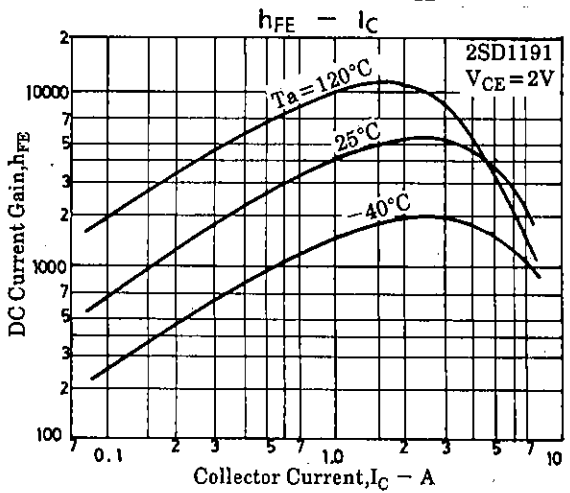
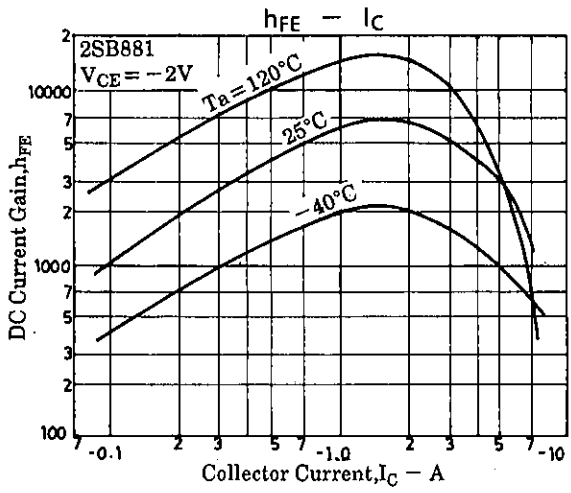
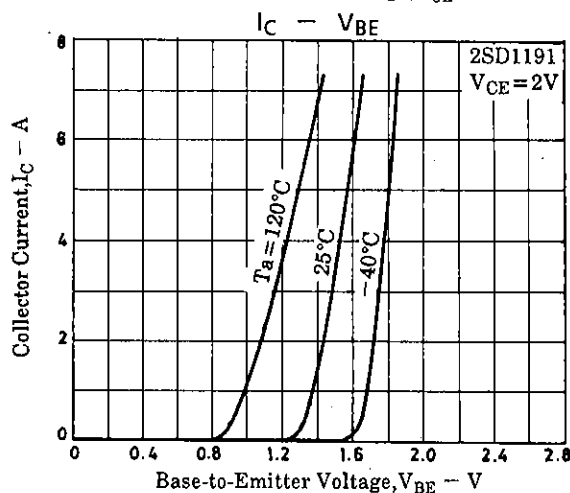
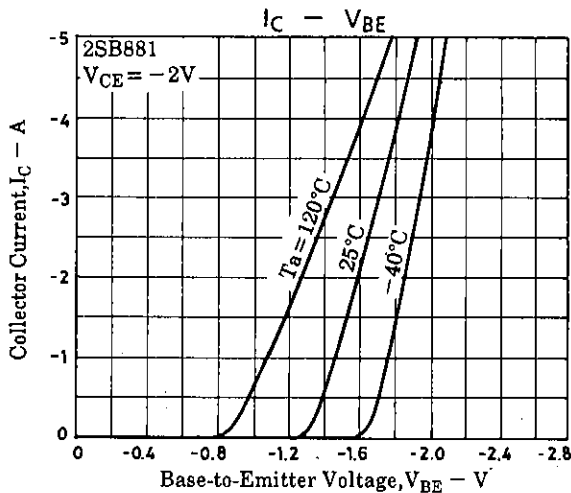
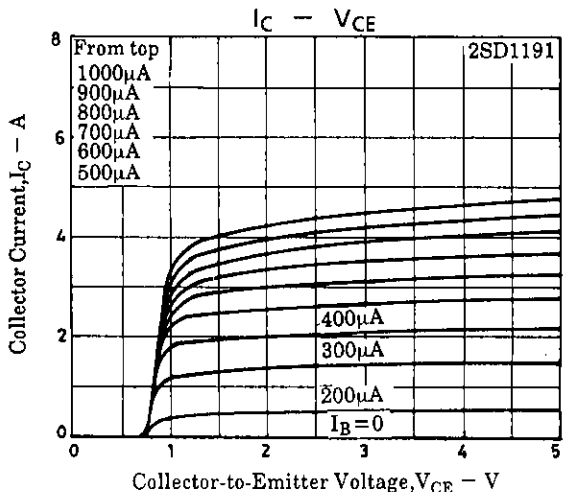
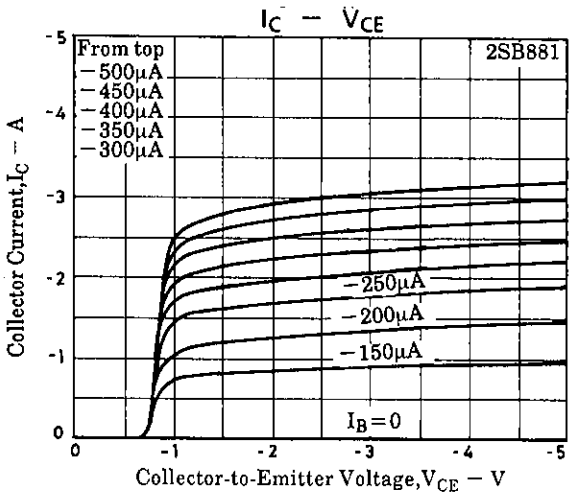
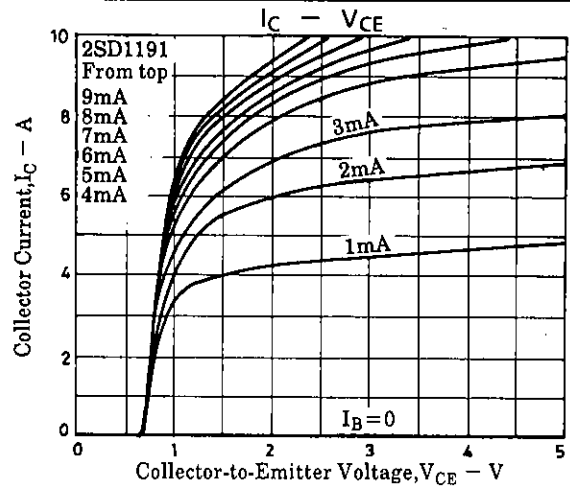
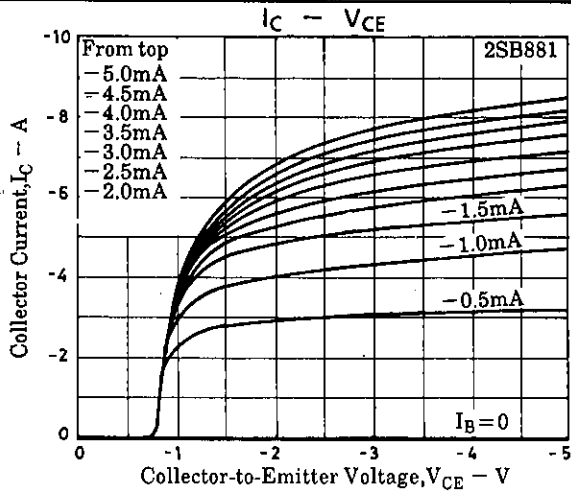


JEDEC : TO220AB  
EIAJ : SC46

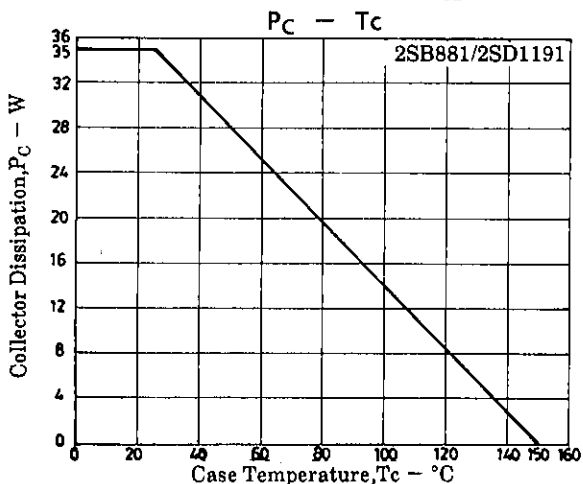
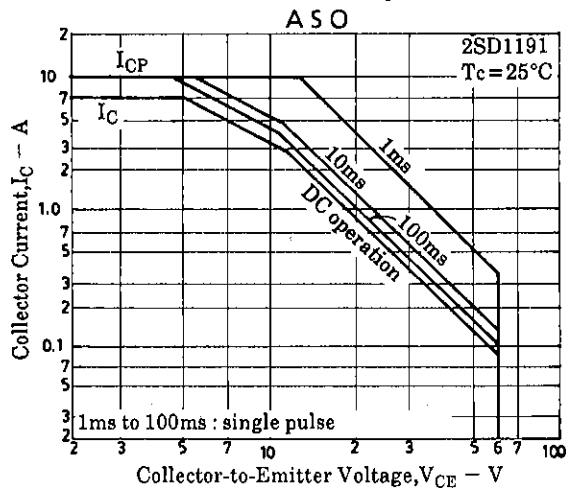
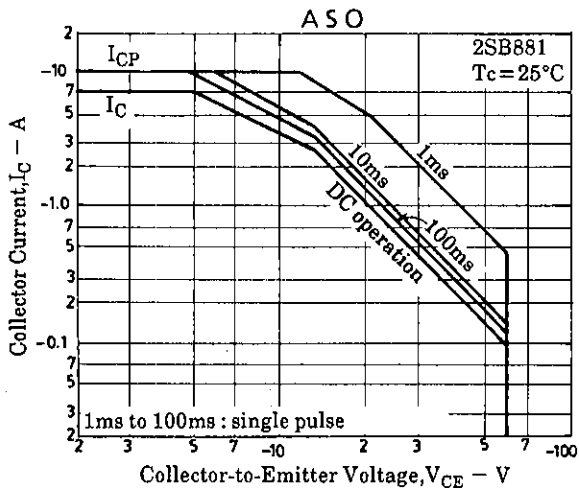
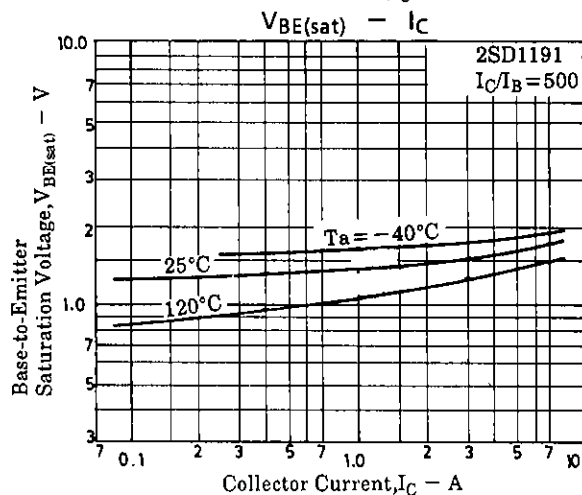
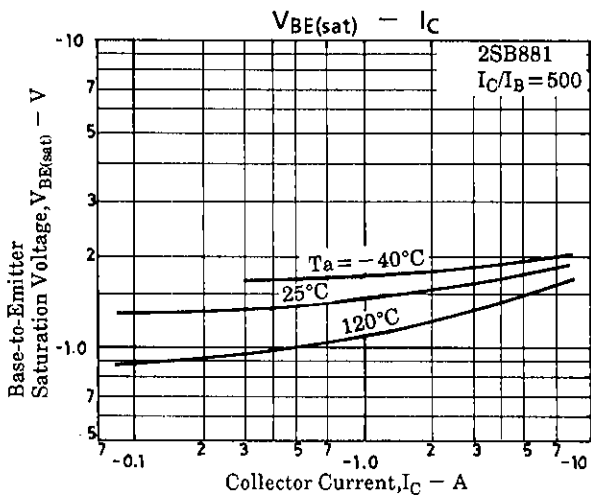
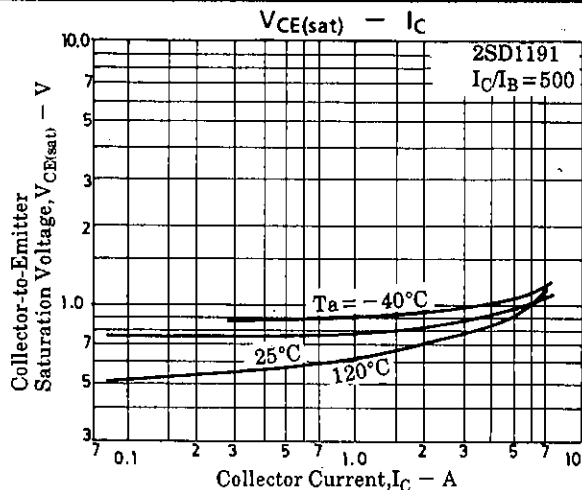
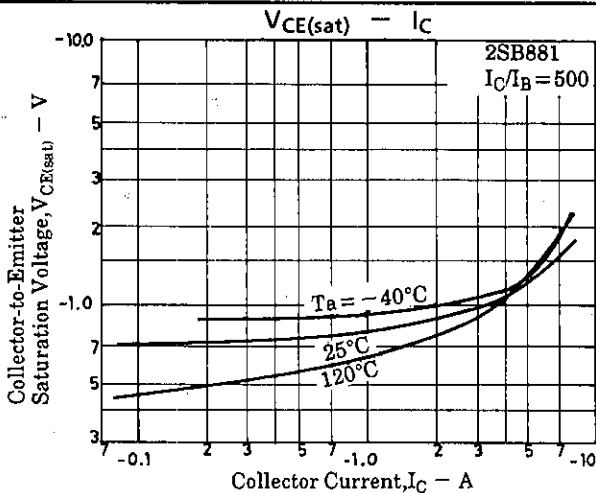
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