



2SB880/2SD1190

For Various Drivers Applications

Applications

- Motor drivers, printer hammer drivers, relay drivers, voltage regulators.

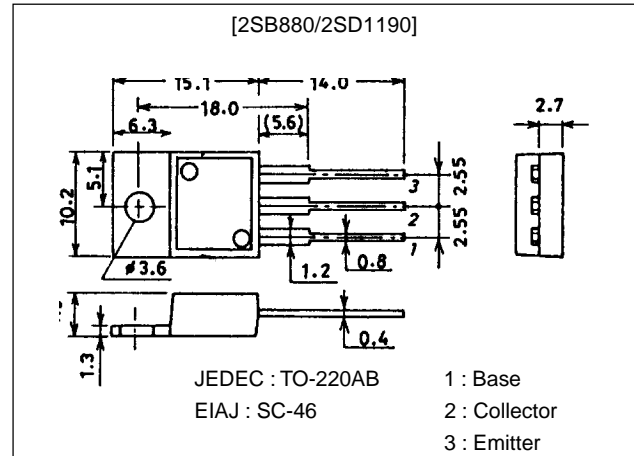
Features

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

Package Dimensions

unit:mm

2010C



() : 2SB880

Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CB0}		(-)-70	V
Collector-to-Emitter Voltage	V_{CEO}		(-)-60	V
Emitter-to-Base Voltage	V_{EBO}		(-)-6	V
Collector Current	I_C		(-)-4	A
Collector Current (Pulse)	I_{CP}		(-)-6	A
Collector Dissipation	P_C		1.75	W
		$T_c=25^\circ\text{C}$	30	W
Junction Temperature	T_j		150	°C
Storage Temperature	T_{stg}		-55 to +150	°C

Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB}=(\text{-})40\text{V}, I_E=0$			(-)-0.1	mA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=(\text{-})5\text{V}, I_C=0$			(-)-3.0	mA
DC Current Gain	h_{FE}	$V_{CE}=(\text{-})2\text{V}, I_C=(\text{-})2\text{A}$	2000	5000		
Gain-Bandwidth Product	f_T	$V_{CE}=(\text{-})5\text{V}, I_C=(\text{-})2\text{A}$		20		MHz
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=(\text{-})2\text{A}, I_B=(\text{-})4\text{mA}$		0.9	(-)-1.5	V
				(-)-1.0		V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=(\text{-})2\text{A}, I_B=(\text{-})4\text{mA}$			(-)-2.0	V

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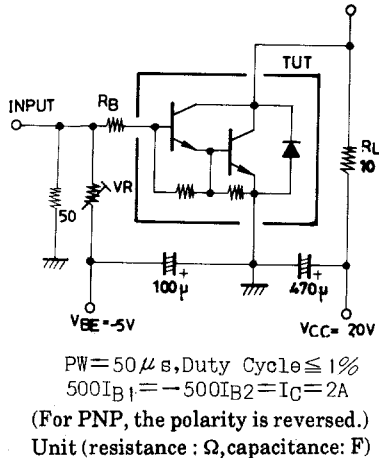
SANYO Electric Co., Ltd. Semiconductor Business Headquarters

TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

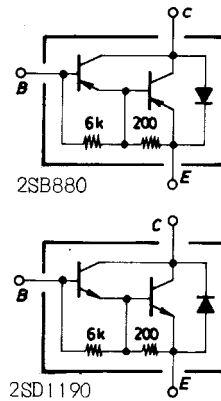
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = (-)5mA, I_E = 0$	(-70)			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = (-)50mA, R_{BE} = \infty$	(-60)			V
Turn-ON Time	t_{on}	See specified Test Circuit		(0.5)		μs
				0.6		μs
Storage Time	t_{stg}	See specified Test Circuit		(1.4)		μs
				2.7		μs
Fall Time	t_f	See specified Test Circuit		(1.2)		μs
				1.6		μs

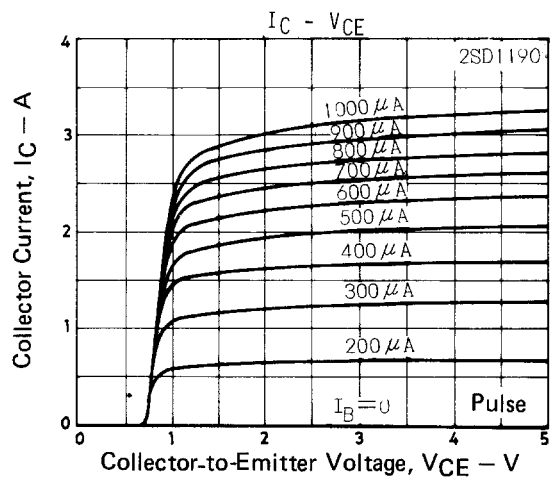
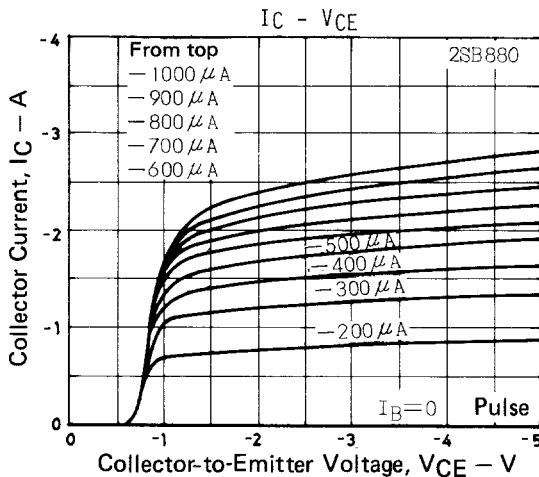
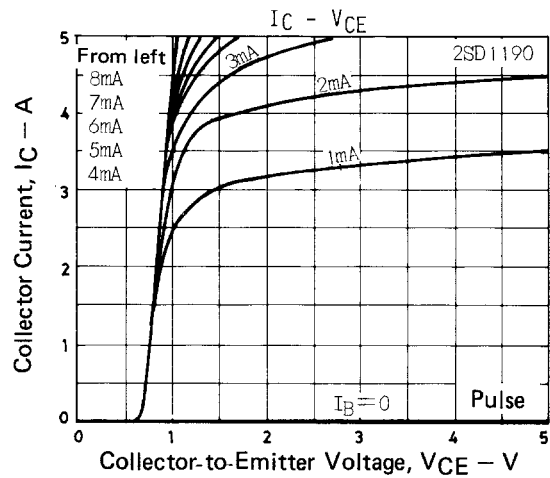
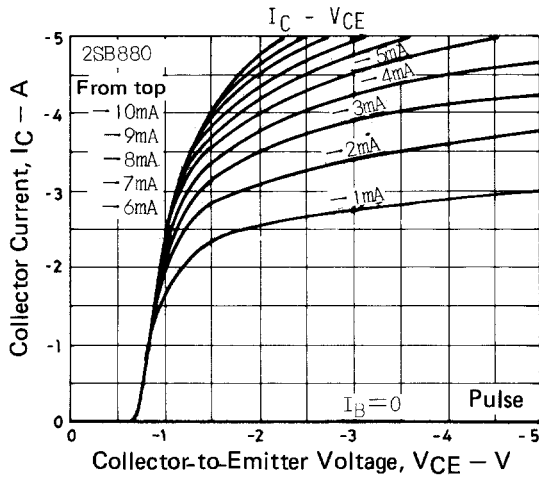
Switching Time Test Circuit



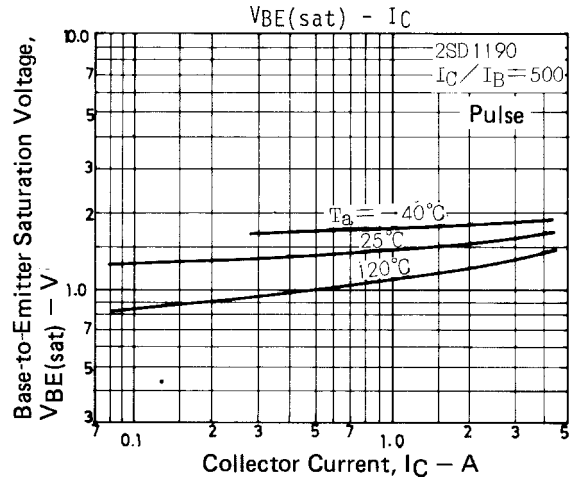
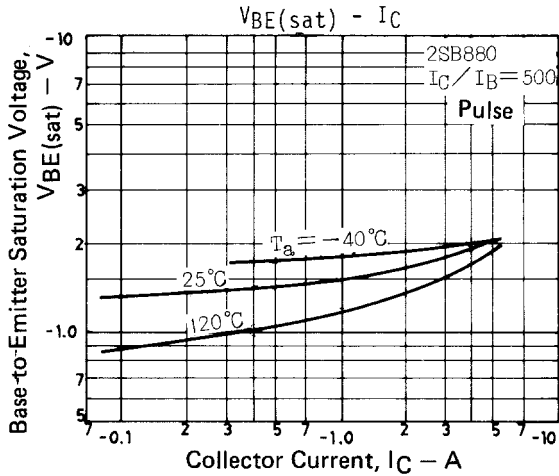
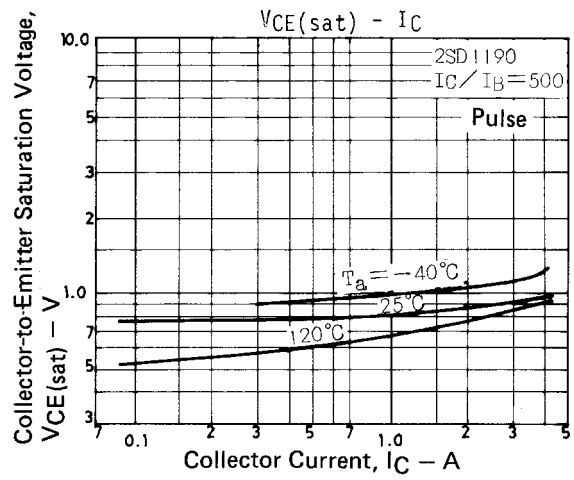
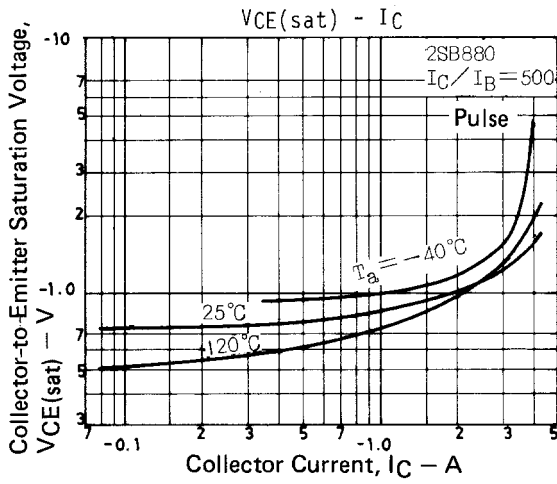
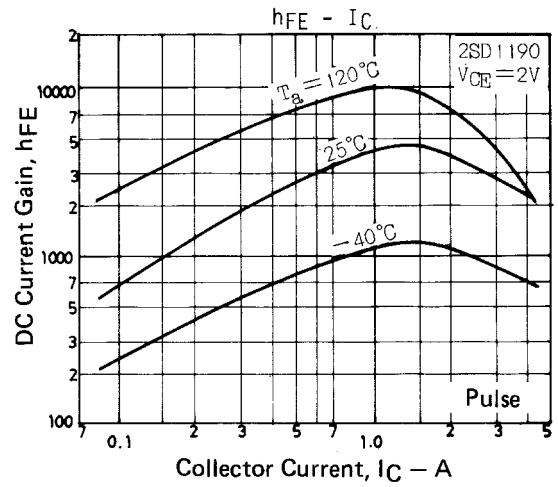
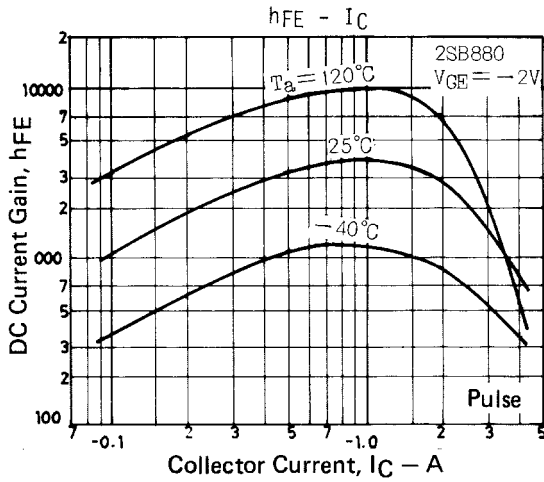
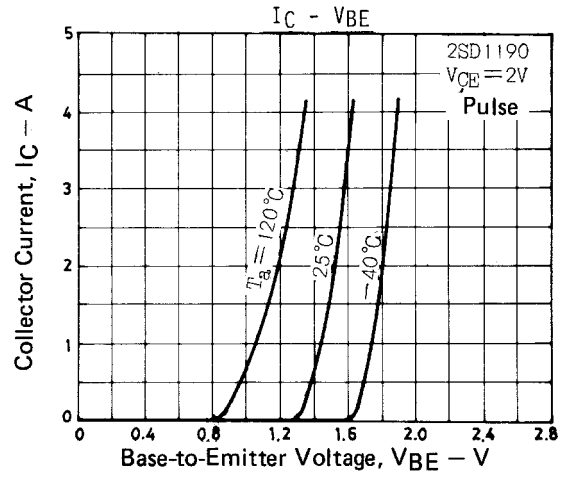
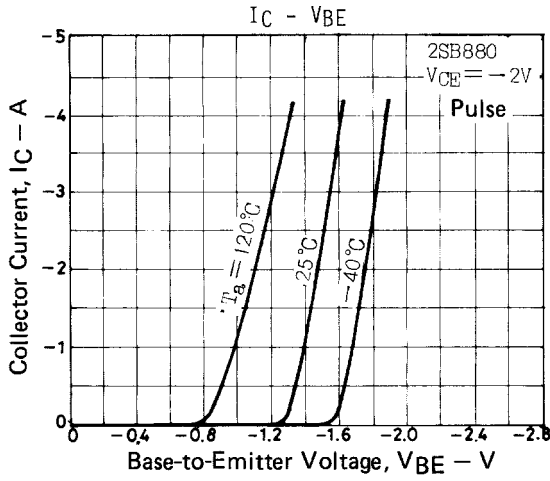
Electrical Connection



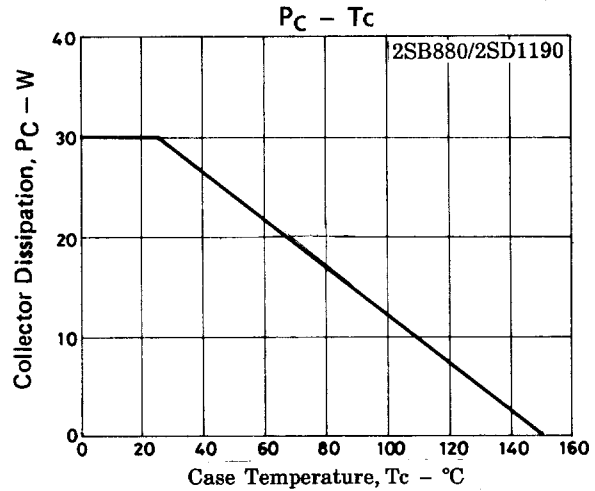
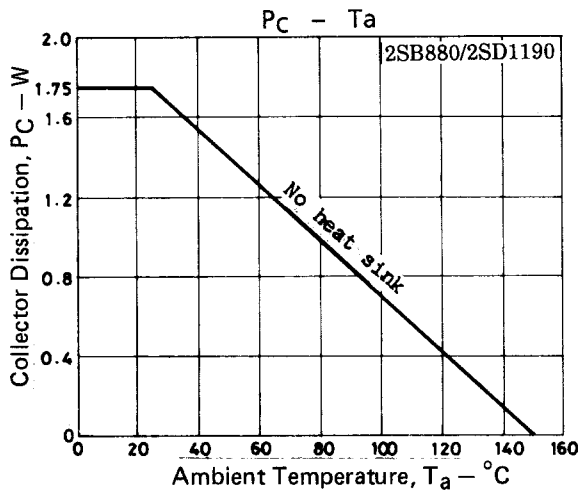
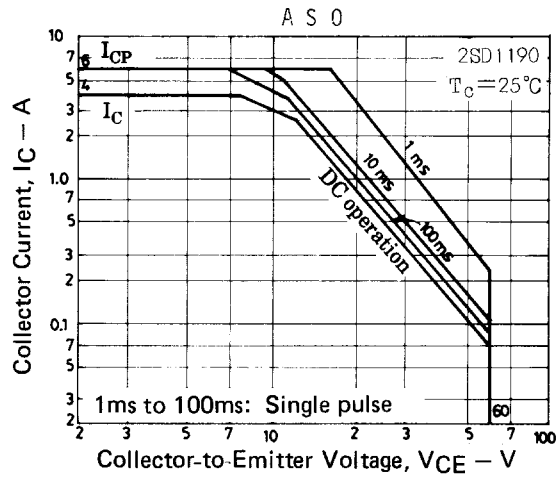
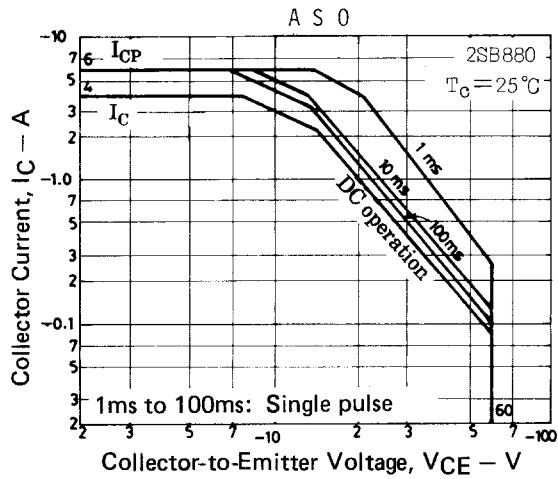
Unit (Resistance : Ω)



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