



2SB883/2SD1193

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.

() : 2SB883

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_{CE0}		(-)60	V
Emitter-to-Base Voltage	V_{EB0}		(-)6	V
Collector Current	I_C		(-)15	A
Collector Current (Pulse)	I_{CP}		(-)20	A
Collector Dissipation	P_C	$T_c=25^\circ\text{C}$	70	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}	$V_{CB}=-40\text{V}, I_E=0$			(-)0.1	mA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=-5\text{V}, I_C=0$			(-)3	mA
DC Current Gain	h_{FE}	$V_{CE}=-2\text{V}, I_C=-7\text{mA}$	2000	5000		
Gain-Bandwidth Product	f_T	$V_{CE}=-5\text{V}, I_C=-7\text{mA}$		20		MHz
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-7\text{mA}, I_B=-14\text{mA}$		0.9	(-)1.5	V
				(-)1.0		V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=-7\text{mA}, I_B=-14\text{mA}$			(-)2.0	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=-5\text{mA}, I_E=0$	(-)70			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=-50\text{mA}, R_{BE}=\infty$	(-)60			V

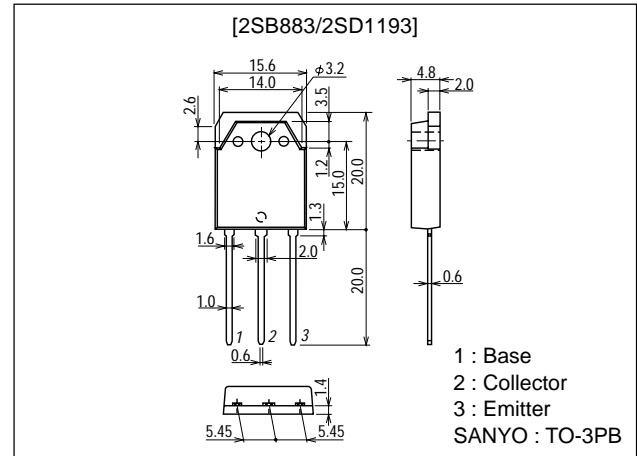
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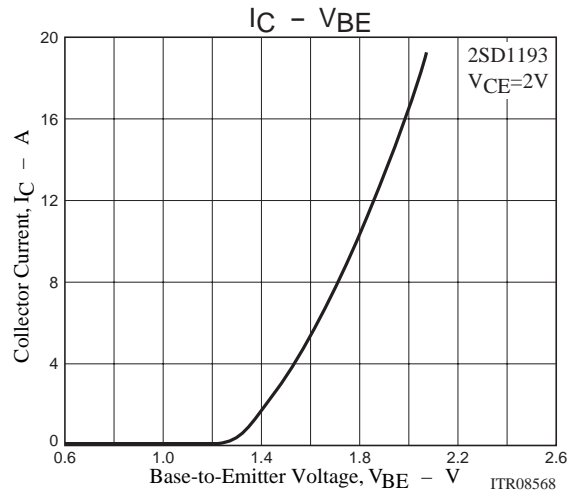
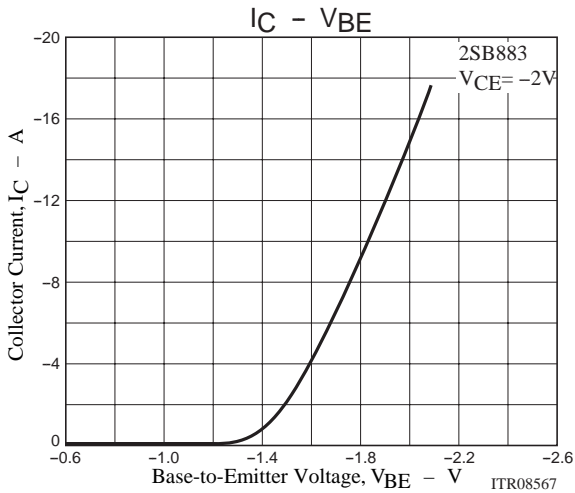
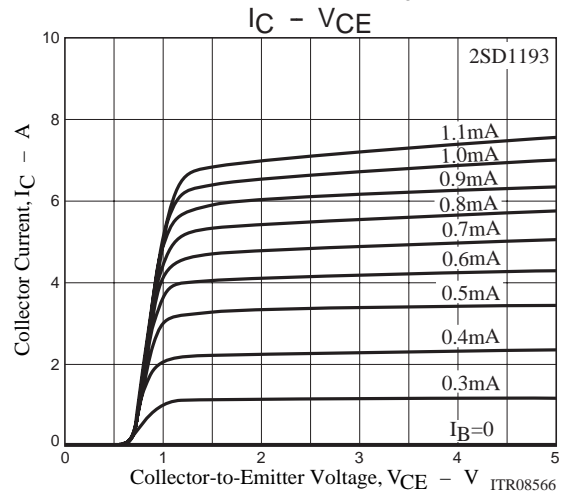
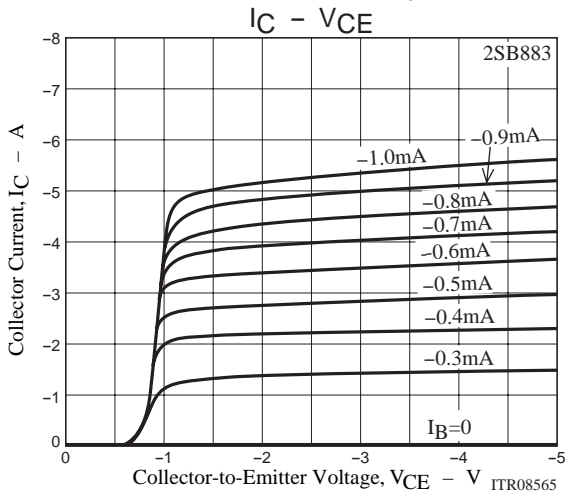
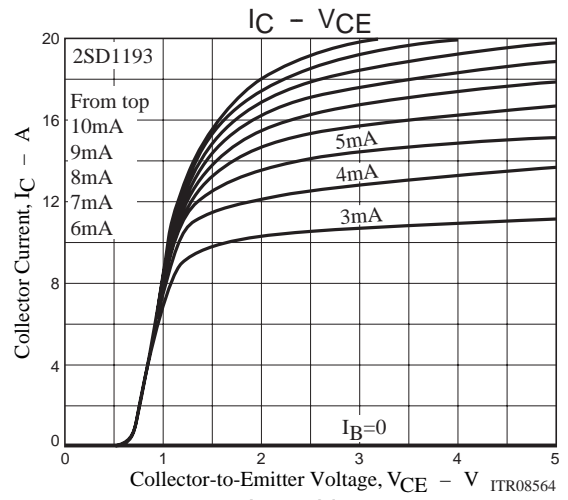
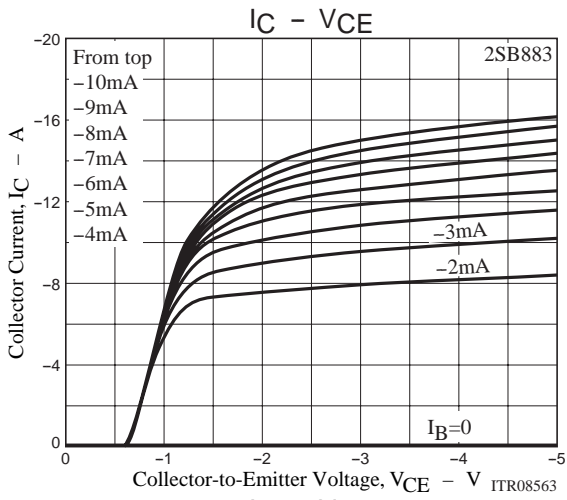
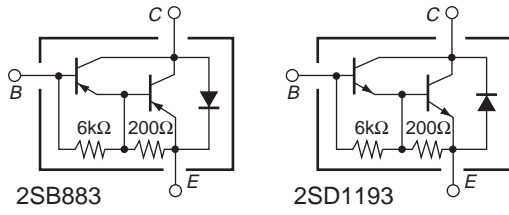
Package Dimensions

unit:mm

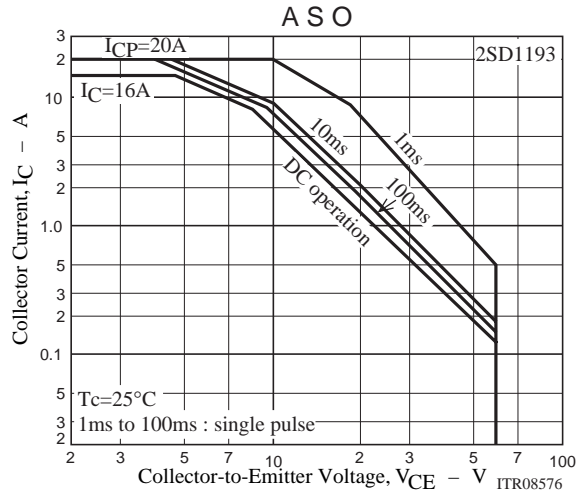
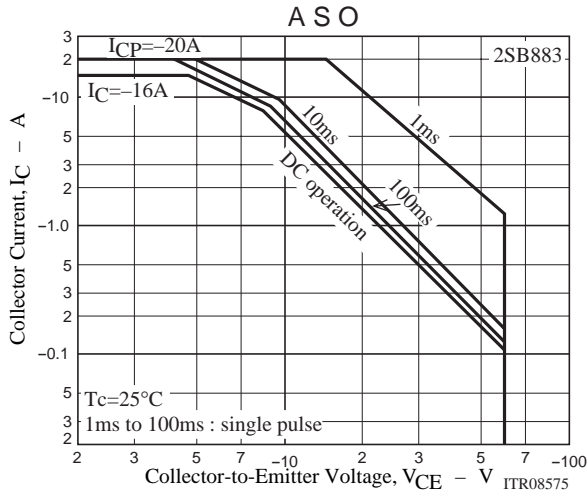
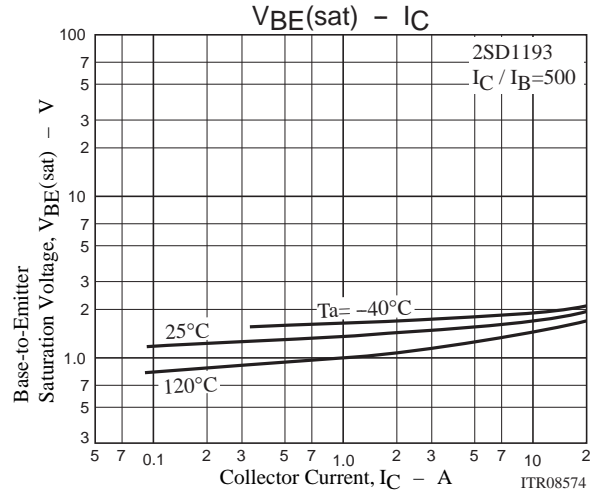
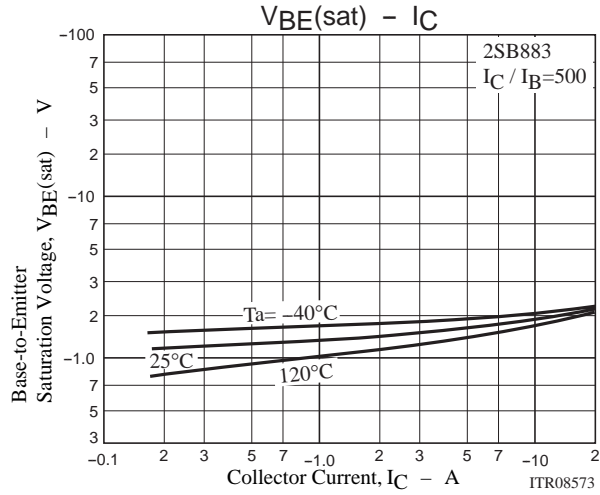
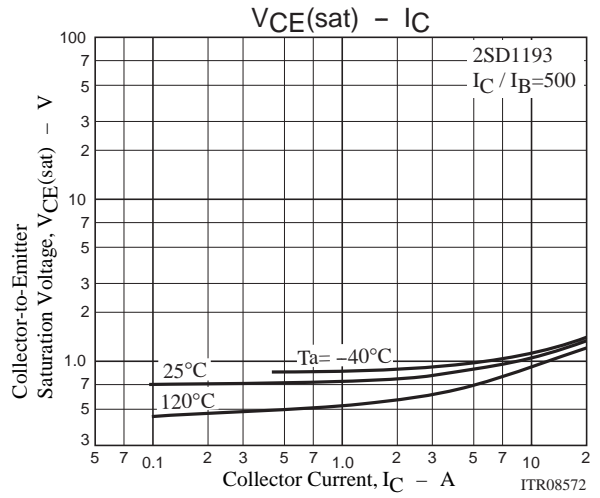
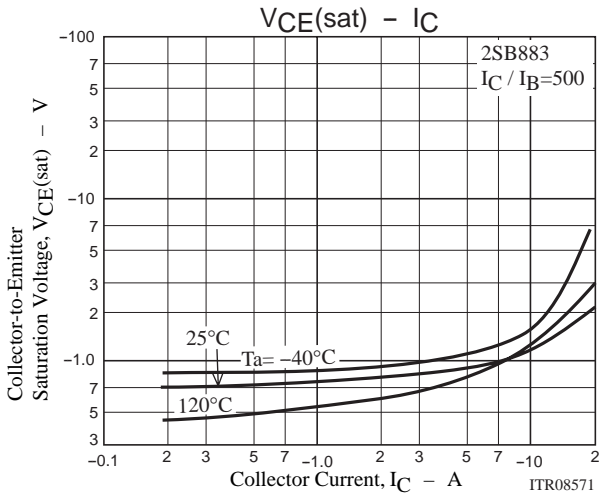
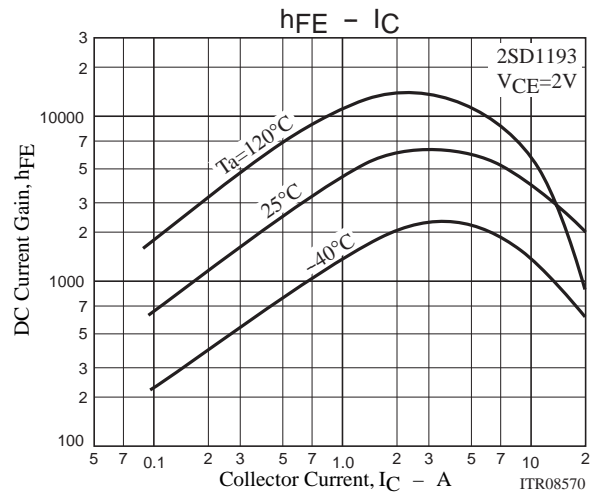
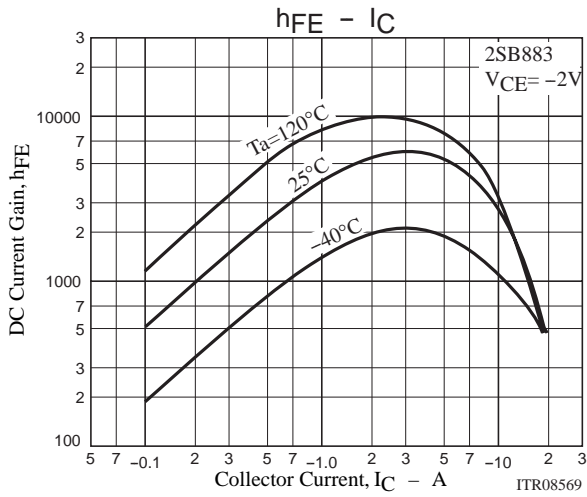
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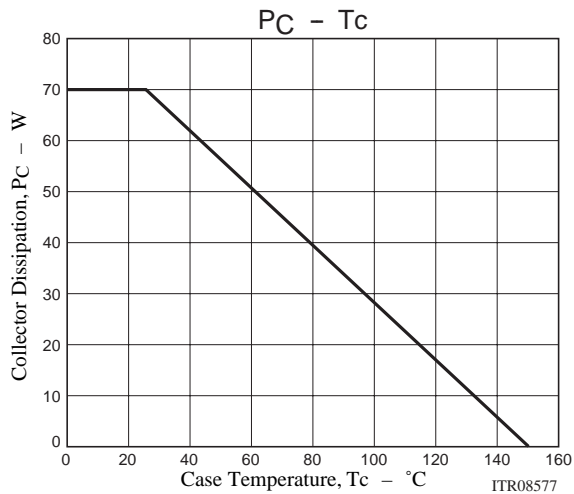
Electrical Connection



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