

2SB1700 / 2SD2663



Driver Applications

Applications

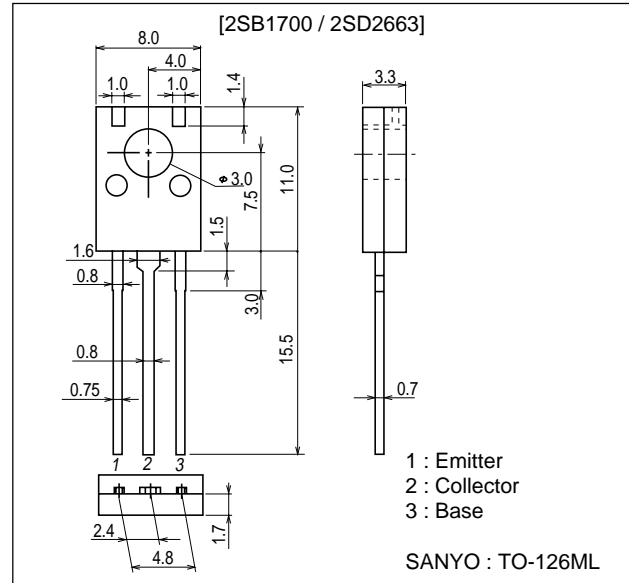
- Motor drivers, printer hammer drivers, relay drivers, voltage regulator control.

Features

- High DC current gain.
- Large current capacity and wide ASO.
- Micaless package facilitating mounting.

Package Dimensions

unit : mm
2042B



() : 2SB1700

Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V _{CB0}		(-)110	V
Collector-to-Emitter Voltage	V _{CEO}		(-)100	V
Emitter-to-Base Voltage	V _{EBO}		(-)6	V
Collector Current	I _C		(-)3	A
Collector Current (Pulse)	I _{CP}		(-)5	A
Collector Dissipation	P _C		1.5	W
		T _c =25°C	10	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 _{CB0}	V _{CB} =(-)80V, I _E =0			(-)0.1	mA
Emitter Cutoff Current	I _{EBO}	V _{EB} =(-)5V, I _C =0			(-)3.0	mA

Continued on next page.

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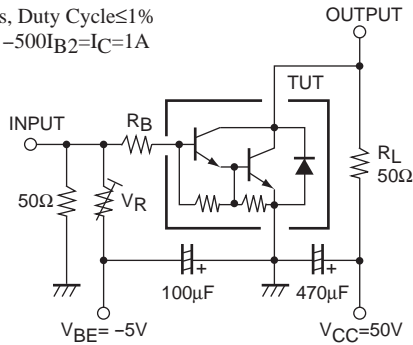
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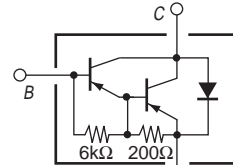
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
DC Current Gain	h_{FE}	$V_{CE}=(-)3V, I_C=(-)1.5A$	1500	4000		
Gain-Bandwidth Product	f_T	$V_{CE}=(-)5V, I_C=(-)1.5A$		20		MHz
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)1.5A, I_B=(-)3mA$		(-1.0)0.9	(-1.5)	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=(-)1.5A, I_B=(-)3mA$			(-2.0)	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=(-)5mA, I_E=0$	(-)110			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)50mA, R_{BE}=\infty$	(-)100			V
Turn-ON Time	t_{on}	See specified Test Circuit.		(0.8)0.7		μs
Storage Time	t_{stg}	See specified Test Circuit.		(2.4)5.0		μs
Fall Time	t_f	See specified Test Circuit.		1.2		μs

Specified Test Circuit (For PNP, the polarity is reversed.)

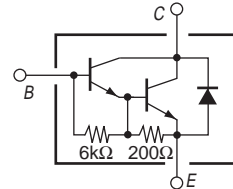
PW=50 μs , Duty Cycle \leq 1%
500I_{B1} = -500I_{B2} = I_C = 1A



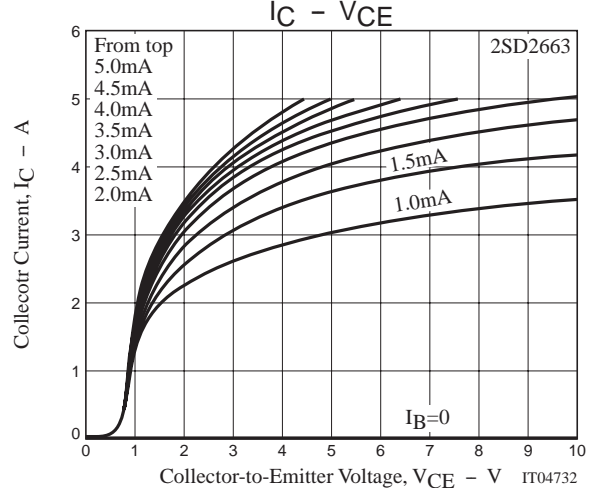
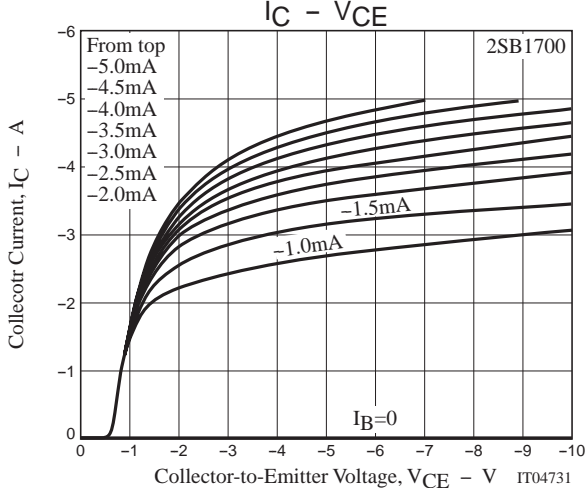
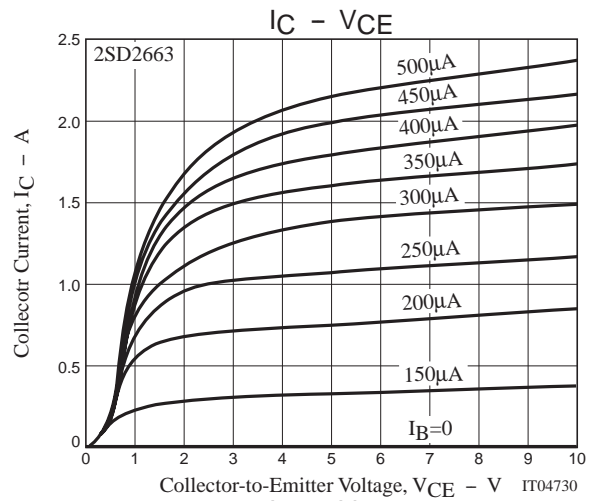
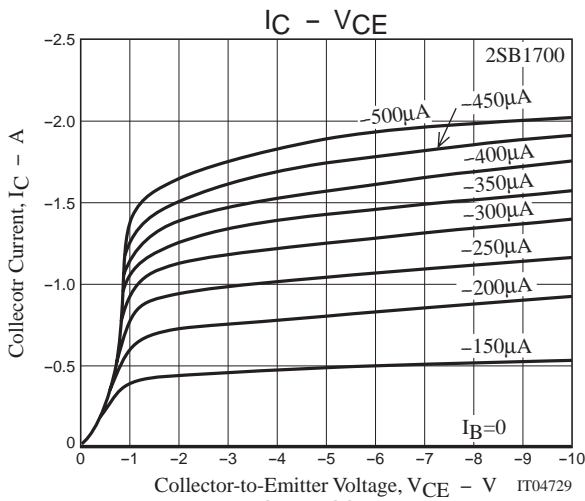
Electrical Connection



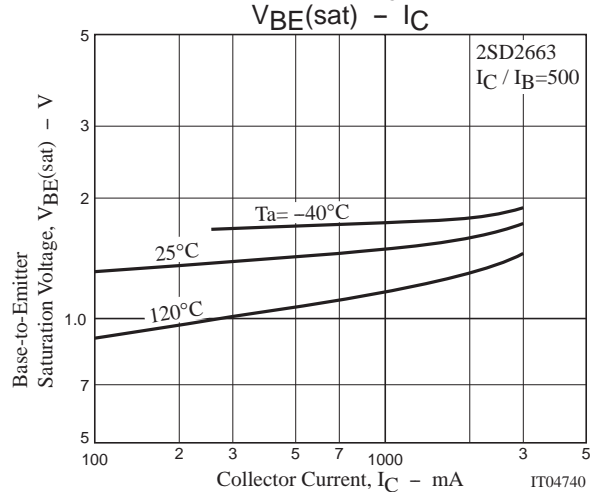
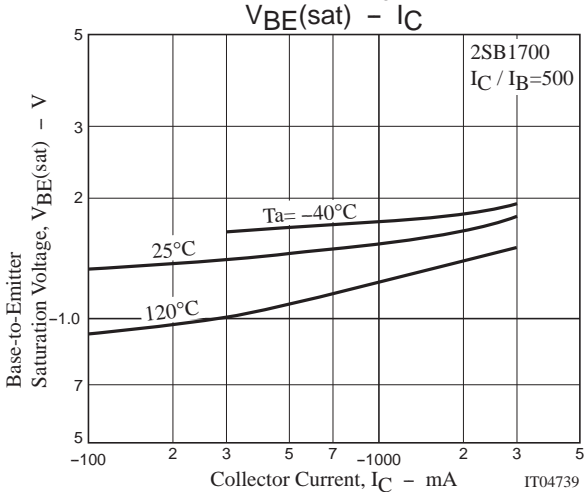
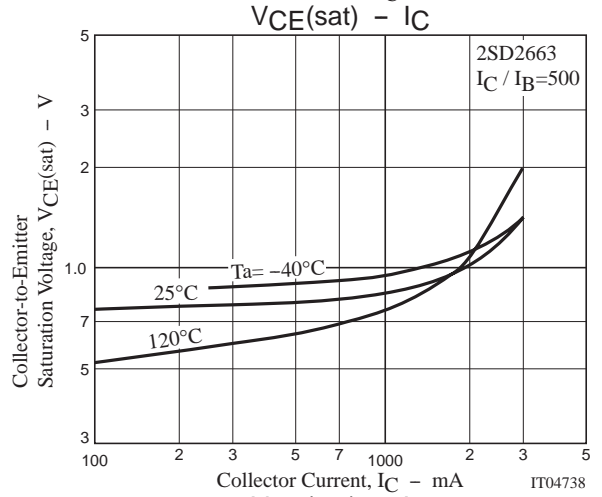
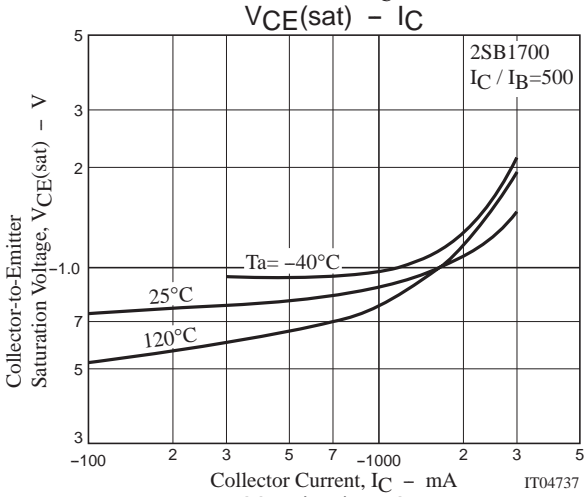
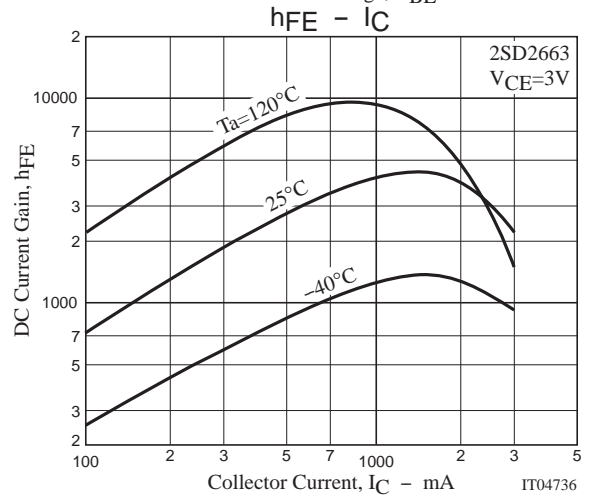
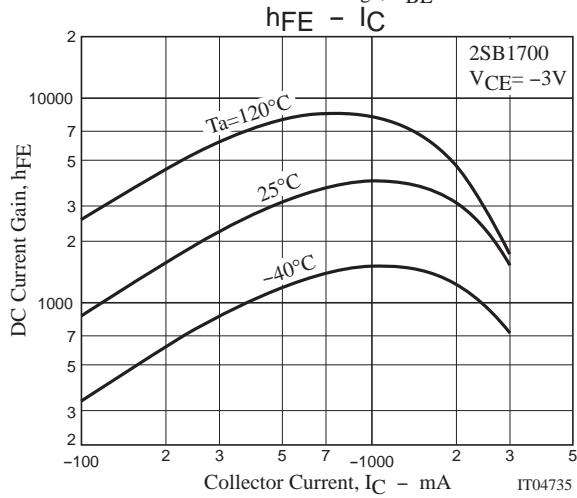
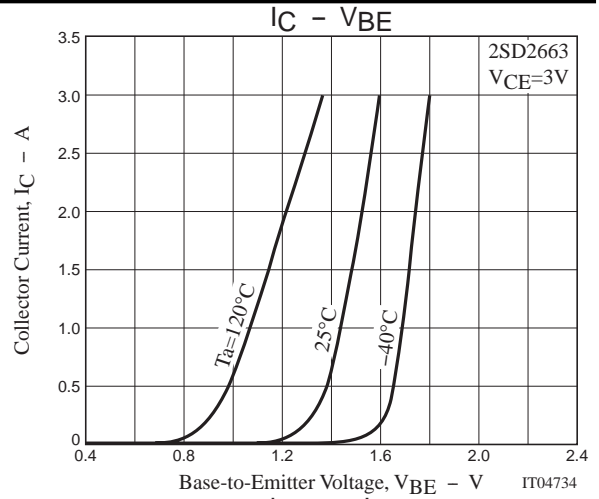
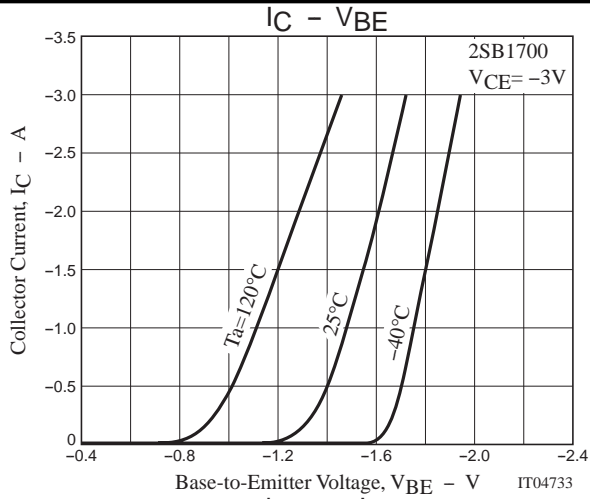
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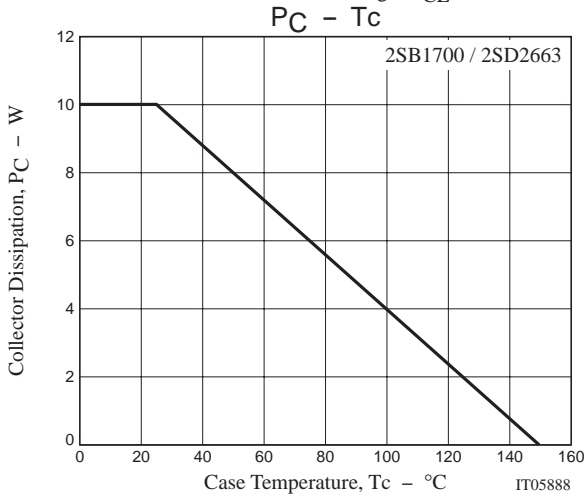
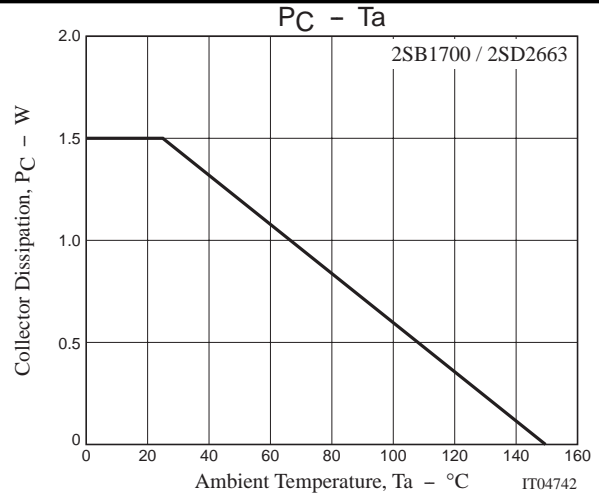
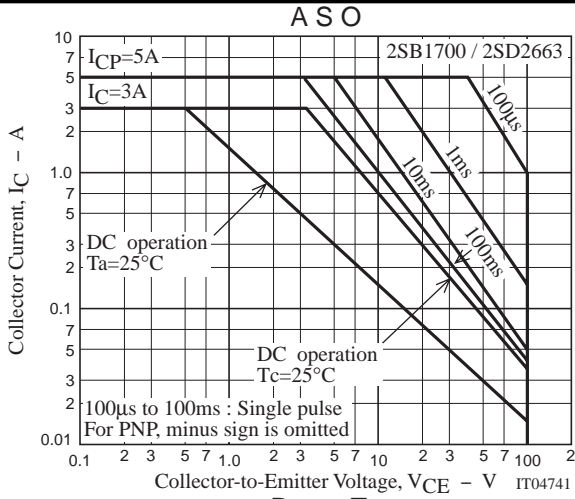
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