

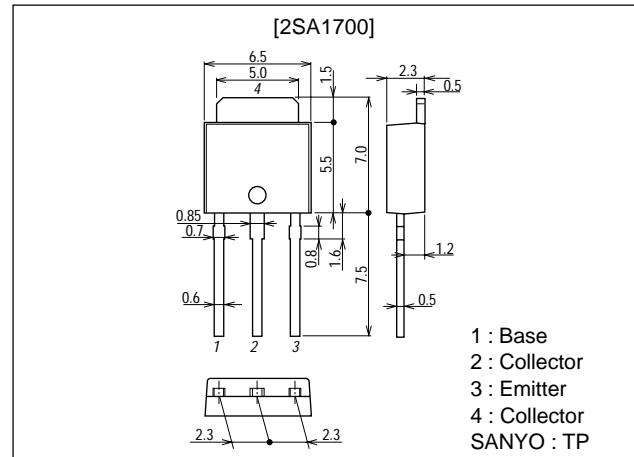
**2SA1700****High-Voltage Driver Applications****Features**

- High breakdown voltage.
- Adoption of MBIT process.
- Excellent h_{FE} linearity.

Package Dimensions

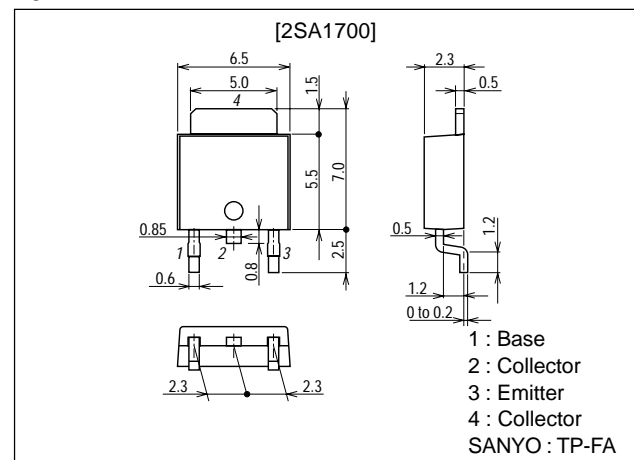
unit:mm

2045B



unit:mm

2044B



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■ SANYO assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all SANYO products described or contained herein.

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2SA1700

Specifications

Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CB0}		-400	V
Collector-to-Emitter Voltage	V_{CEO}		-400	V
Emitter-to-Base Voltage	V_{EBO}		-5	V
Collector Current	I_C		-200	mA
Collector Current (Pulse)	I_{CP}		-400	mA
Collector Dissipation	P_C		1	W
		$T_c=25^\circ\text{C}$	10	W
Junction Temperature	T_J		150	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +150	$^\circ\text{C}$

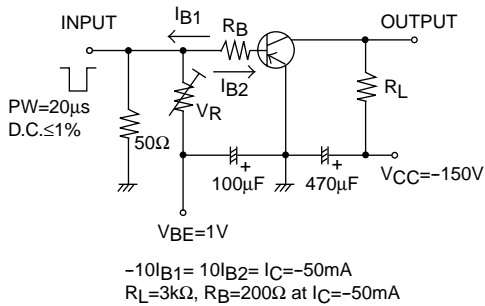
Electrical Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB}=-300\text{V}, I_E=0$			-0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=-4\text{V}, I_C=0$			-0.1	μA
DC Current Gain	h_{FE}	$V_{CE}=-10\text{V}, I_C=-50\text{mA}$	60*		200*	
Gain-Bandwidth Product	f_T	$V_{CE}=-30\text{V}, I_C=-10\text{mA}$		70		MHz
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-50\text{mA}, I_B=-5\text{mA}$			-0.8	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=-50\text{mA}, I_B=-5\text{mA}$			-1.0	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=-10\mu\text{A}, I_E=0$	-400			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=-1\text{mA}, R_{BE}=\infty$	-400			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=-10\mu\text{A}, I_C=0$	-5			V
Collector Output Capacitance	C_{ob}	$V_{CB}=-30\text{V}, f=1\text{MHz}$		5		pF
Reverse Transfer Capacitance	C_{re}	$V_{CB}=-30\text{V}, f=1\text{MHz}$		4		pF
Turn-ON Time	t_{on}	See specified Test Circuit		0.25		μs
Turn-OFF Time	t_{off}	See specified Test Circuit		5		μs

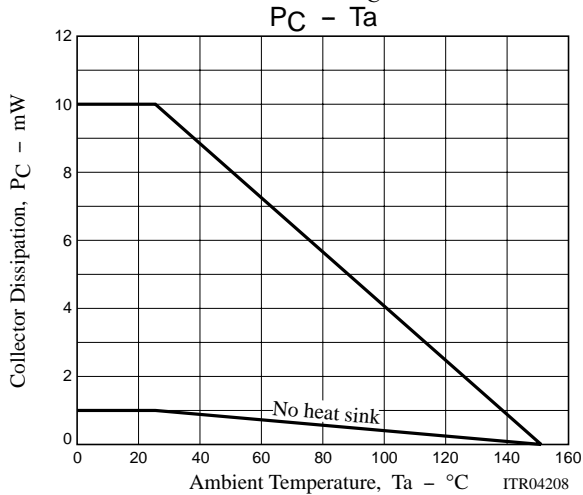
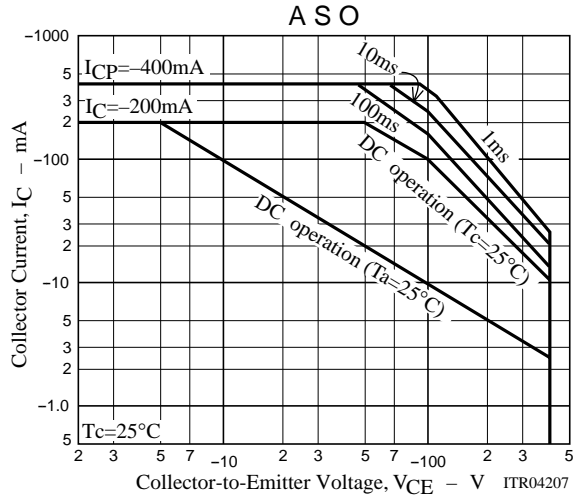
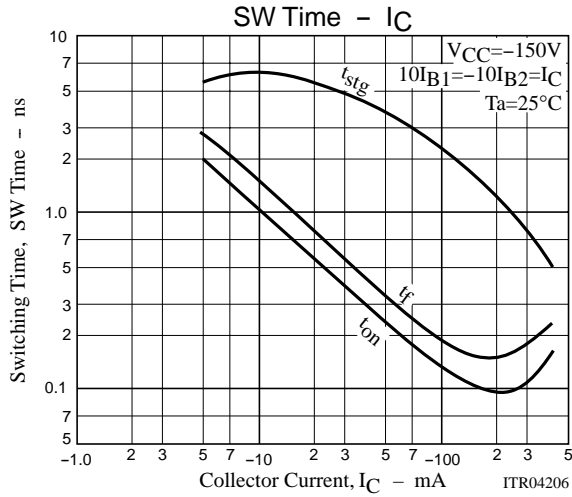
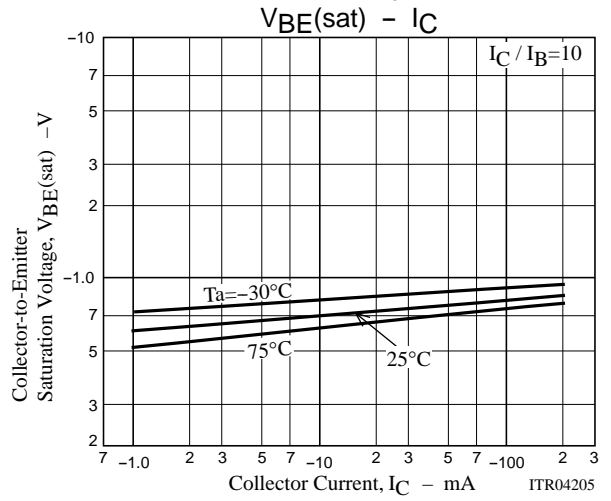
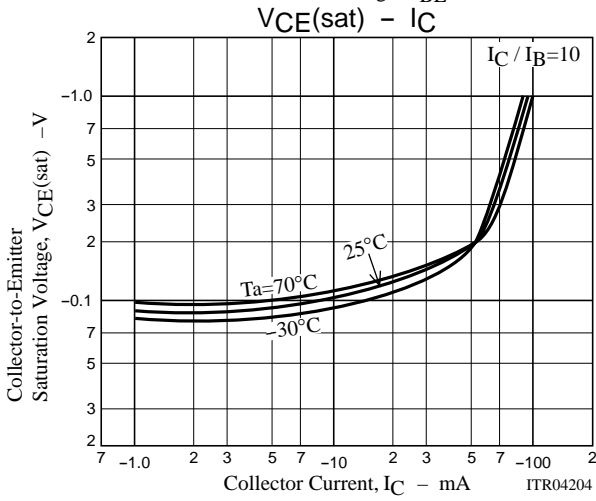
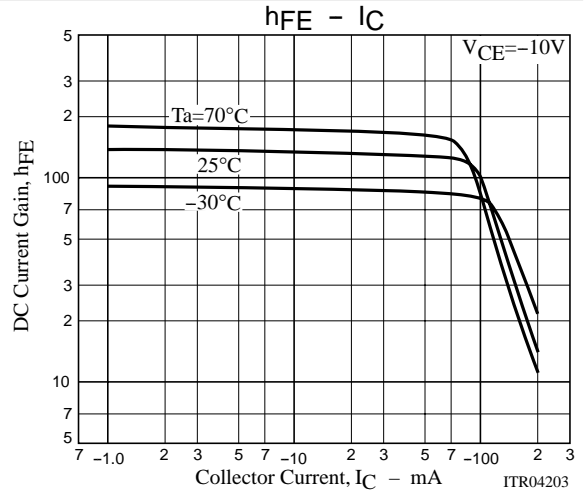
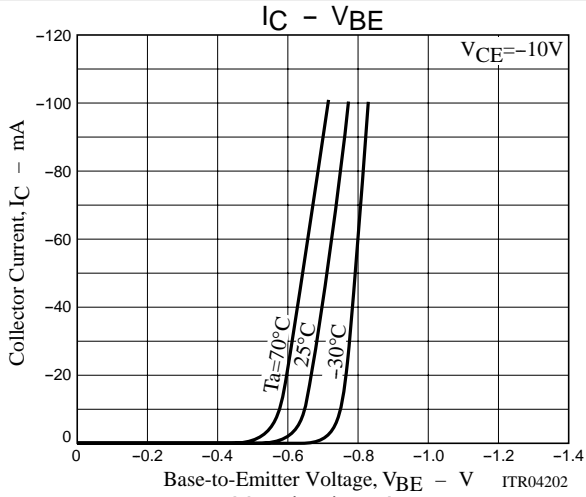
* : The 2SA1700 is classified by 50mA h_{FE} as follows :

Rank	D	E
h_{FE}	60 to 120	100 to 200

Switching Time Test Circuit



2SA1700



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