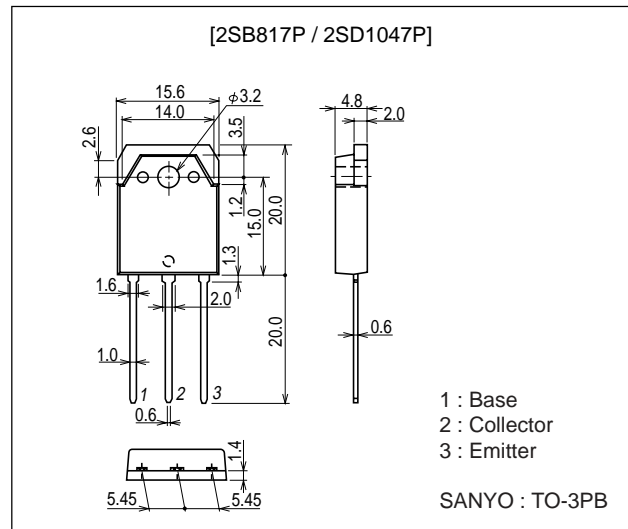


Features

- Capable of being mounted easily because of one-point fixing type plastic molded package (Interchangeable with TO-3).
- Wide ASO because of built-in ballast resistance.
- Good dependence of f_T on current and good HF characteristic.

Package Dimensions

unit : mm
2022A



Specifications

() : 2SB817P

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

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CB0}		(-)160	V
Collector-to-Emitter Voltage	V_{CEO}		(-)140	V
Emitter-to-Base Voltage	V_{EBO}		(-)6	V
Collector Current	I_C		(-)12	A
Collector Current (Pulse)	I_{CP}		(-)15	A
Collector Dissipation	P_C	$T_c=25^\circ\text{C}$	120	W
Junction Temperature	T_J		150	$^\circ\text{C}$
Storage Temperature	T_{stg}		-40 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}	$V_{CB}=-80\text{V}, I_E=0$			(-)0.1	mA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=-4\text{V}, I_C=0$			(-)0.1	mA

Continued on next page.

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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.

2SB817P / 2SD1047P

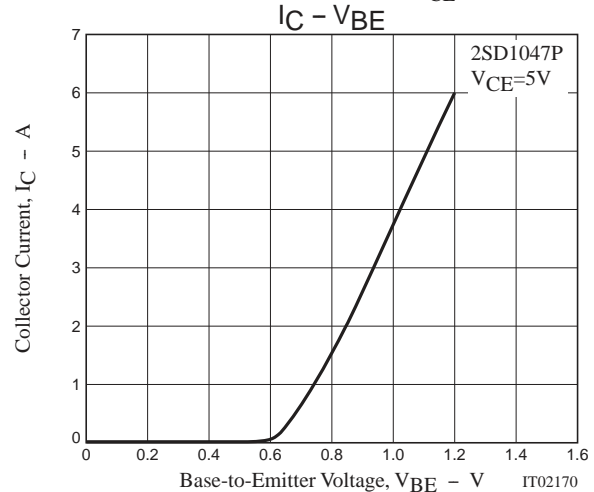
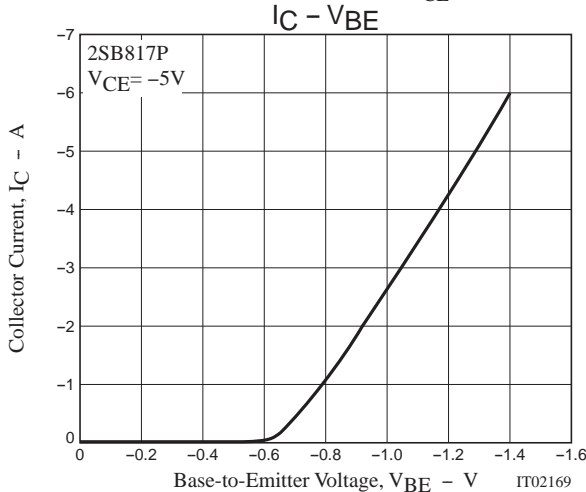
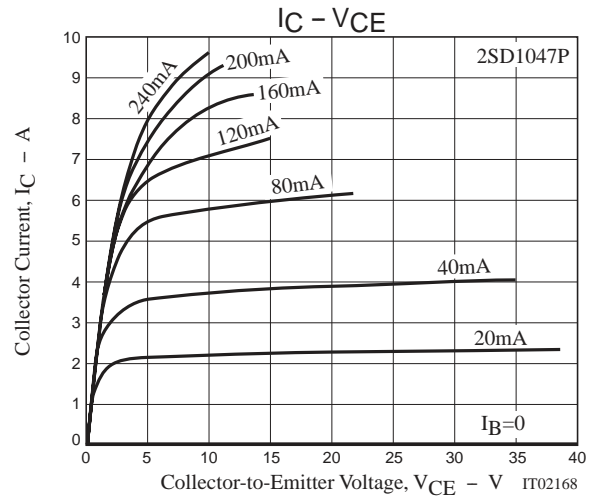
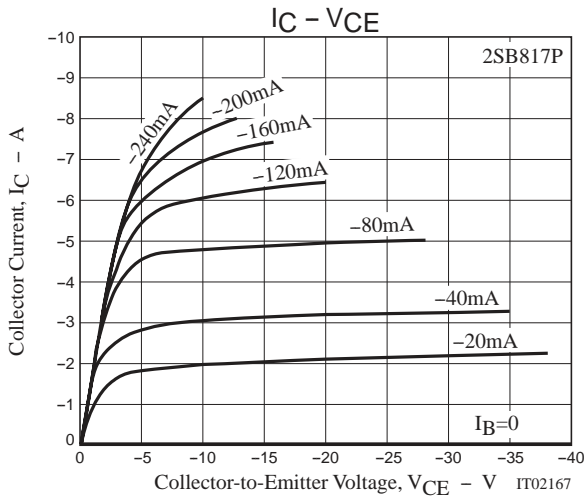
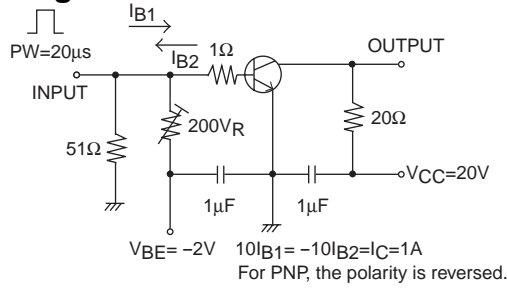
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
DC Current Gain	h_{FE1}	$V_{CE}=(-)5V, I_C=(-)1A$	60*		200*	
	h_{FE2}	$V_{CE}=(-)5V, I_C=(-)6A$	20			
Gain-Bandwidth Product	f_T	$V_{CE}=(-)5V, I_C=(-)1A$		15		MHz
Output Capacitance	C_{ob}	$V_{CB}=(-)10V, f=1MHz$		(300)210		pF
Base-to-Emitter Saturation Voltage	V_{BE}	$V_{CE}=(-)5V, I_C=(-)1A$			1.5	V
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)5A, I_B=(-)0.5A$		(1.1)0.6	2.5	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=(-)5mA, I_E=0$	(-)160			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)5mA, R_{BE}=\infty$	(-)140			V
		$I_C=(-)50mA, R_{BE}=\infty$	(-)140			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=(-)5mA, I_C=0$	(-)6			V
Turn-ON Time	t_{on}	See specified test circuit.		(0.25)0.26		μs
Fall Time	t_f	See specified test circuit.		(0.53)0.68		μs
Storage Time	t_{stg}	See specified test circuit.		(1.61)6.88		μs

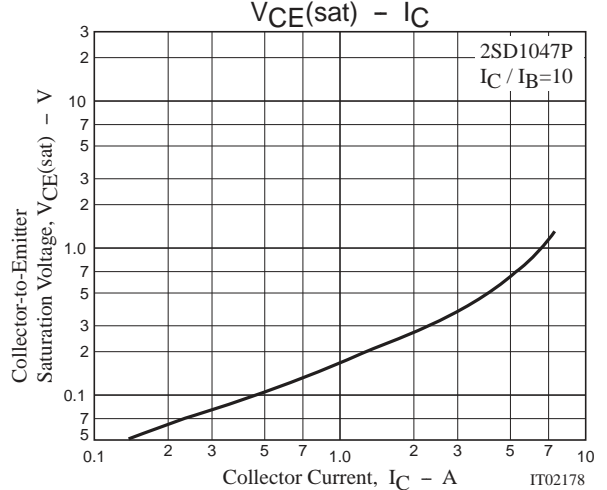
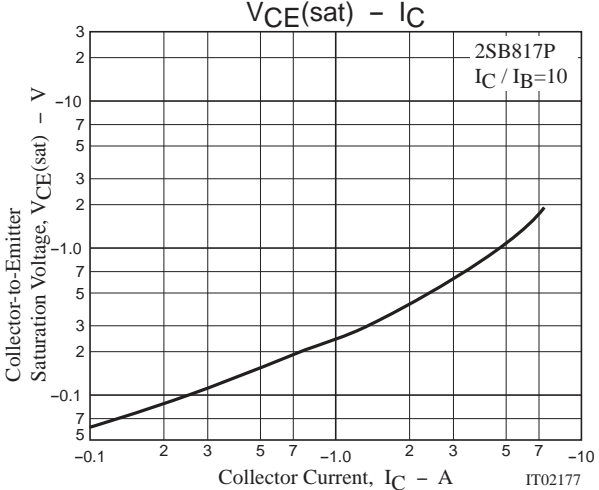
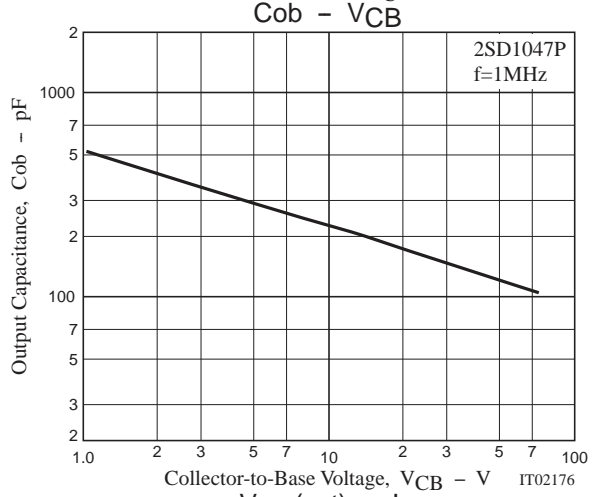
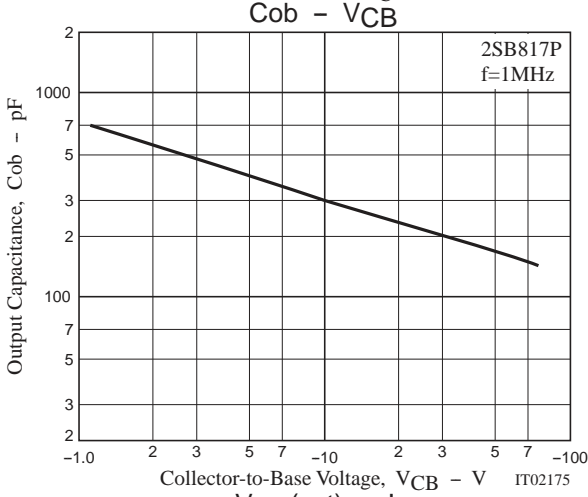
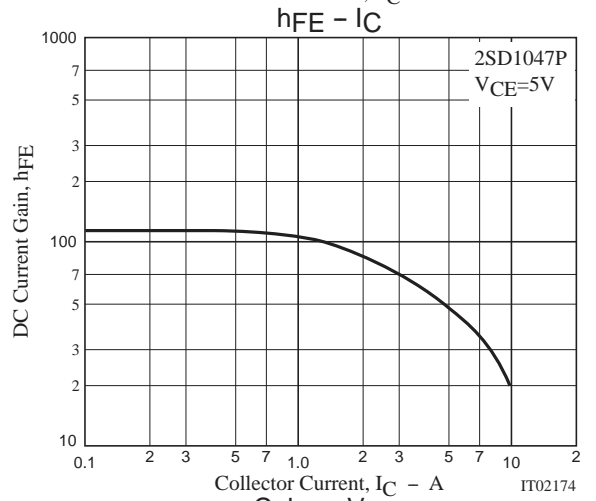
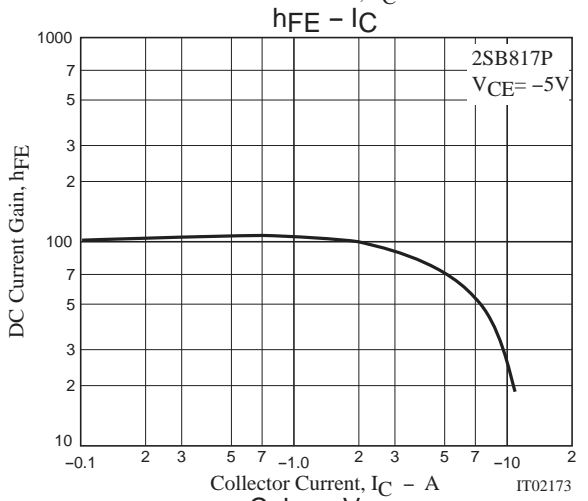
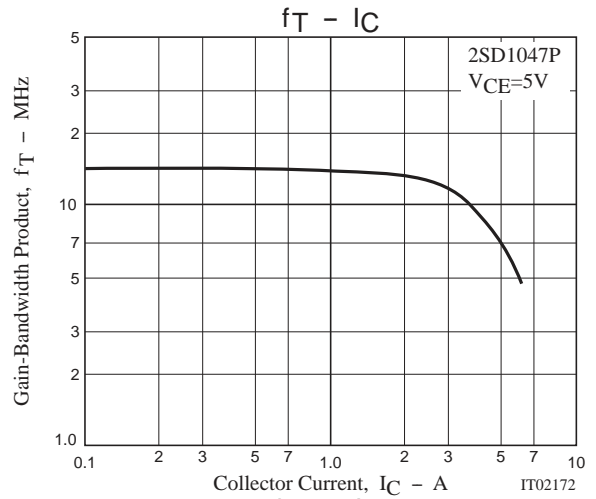
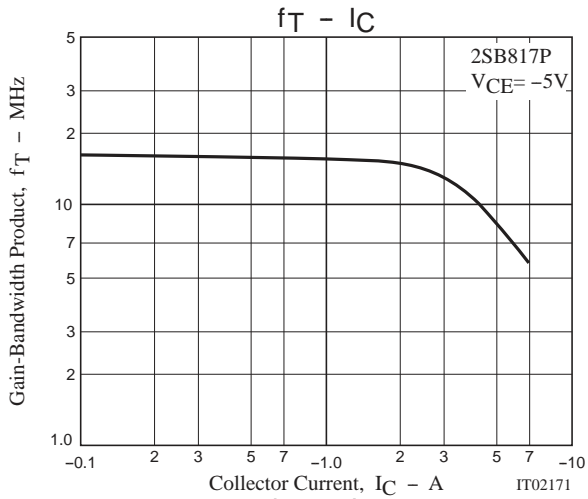
* : The 2SB817P / 2SD1047P are classified by 1A h_{FE} as follows

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

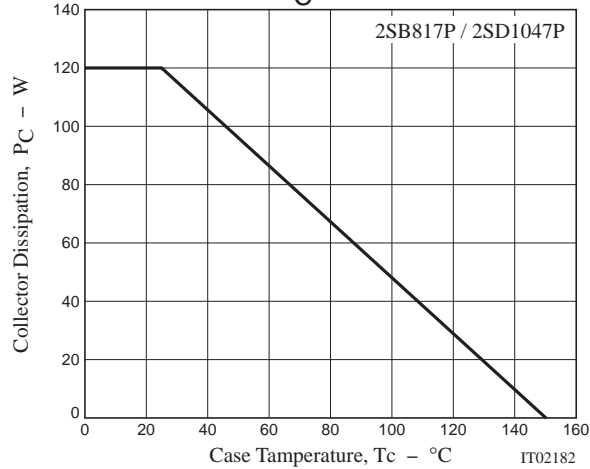
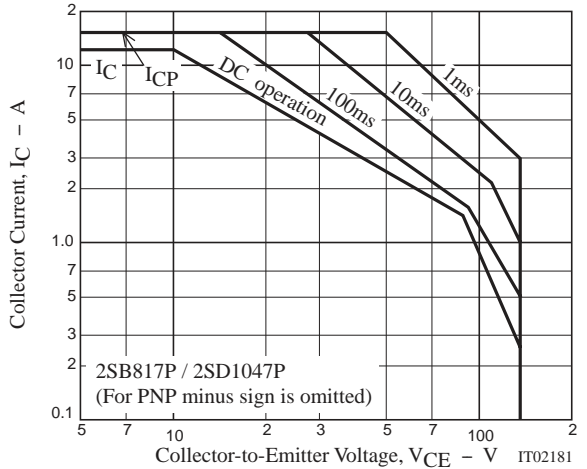
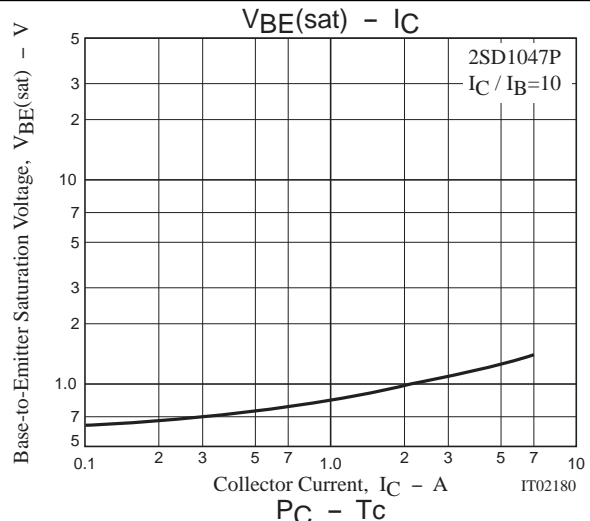
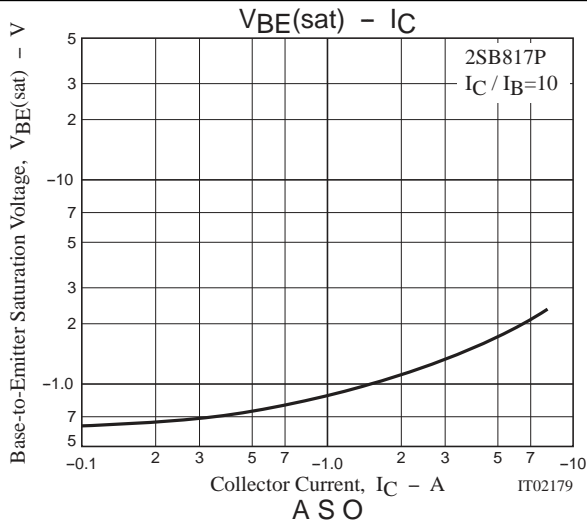
Switching Time Test Circuit



2SB817P / 2SD1047P



2SB817P / 2SD1047P



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