

Features

- Capable of being mounted easily because of one-point fixing type plastic molded package (Interchangeable with TO-3).
- Wide ASO because of on-chip ballast resistance.
- Good dependence of f_T on current and excellent high frequency response.

The descriptions in parentheses are for the 2SB776 only ; other descriptions than those in parentheses are common to the 2SB 776 and 2SD896.

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

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Collector-to-Base Voltage	V_{CB0}	(-)120	V
Collector-to-Emitter Voltage	V_{CE0}	(-)100	V
Emitter-to-Base Voltage	V_{EB0}	(-)6	V
Collector Current	I_C	(-)7	A
Collector Current (Pulse)	I_{CP}	(-)11	A
Collector Dissipation	P_C	70	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40 to +150	$^\circ\text{C}$

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

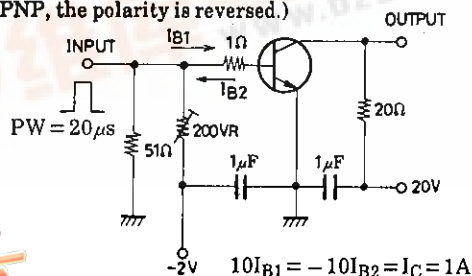
			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = (-)80\text{V}, I_E = 0$			$(-)0.1$	mA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = (-)4\text{V}, I_C = 0$			$(-)0.1$	mA
DC Current Gain	$h_{FE(1)}$	$V_{CE} = (-)5\text{V}, I_C = (-)1\text{A}$	60	*	200	*
	$h_{FE(2)}$	$V_{CE} = (-)5\text{V}, I_C = (-)4\text{A}$	20			
Gain-Bandwidth Product	f_T	$V_{CE} = (-)5\text{V}, I_C = (-)1\text{A}$		15		MHz
Output Capacitance	C_{ob}	$V_{CB} = (-)10\text{V}, f = 1\text{MHz}$		(200)140		pF
Base-to-Emitter Voltage	V_{BE}	$V_{CE} = (-)5\text{V}, I_C = (-)1\text{A}$			$(-)1.5$	V
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = (-)4\text{A}, I_B = (-)0.4\text{A}$		(-0.9)	2.0	V
				0.6		
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = (-)5\text{mA}, I_E = 0$	$(-)120$			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = (-)5\text{mA}, R_{BE} = \infty$	$(-)100$			V
		$I_C = (-)50\text{mA}, R_{BE} = \infty$	$(-)100$			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = (-)5\text{mA}, I_C = 0$	$(-)6$			V
Turn-ON Time	t_{on}	See specified Test Circuit.		(0.2)0.2		μs
Fall Time	t_f	"		(0.3)0.6		μs
Storage Time	t_{stg}	"		(1.2)6.0		μs

※ : The 2SB776/2SD896 are classified by 1A hFF as follows.

60	D	120	100	E	200
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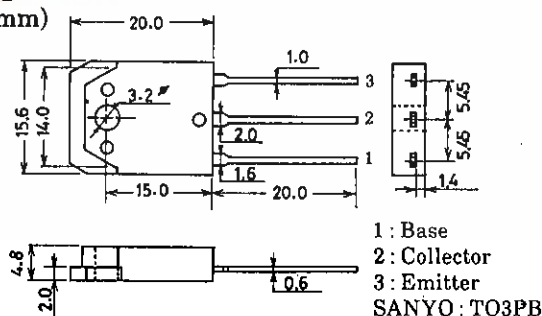
Switching Time Test Circuit

(For PNP, the polarity is reversed.)

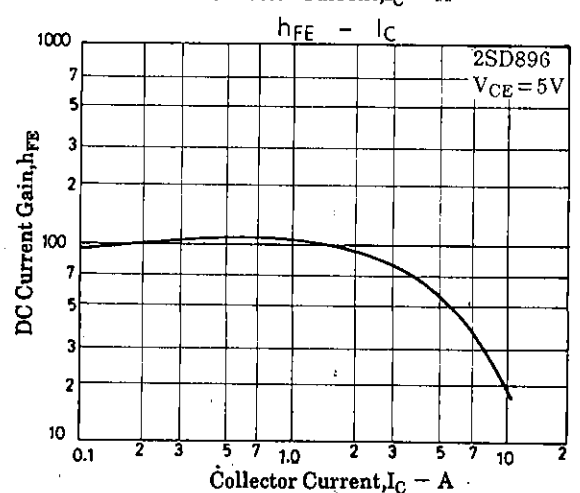
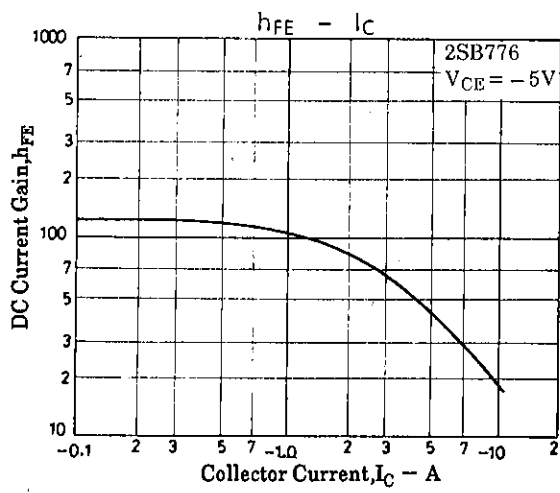
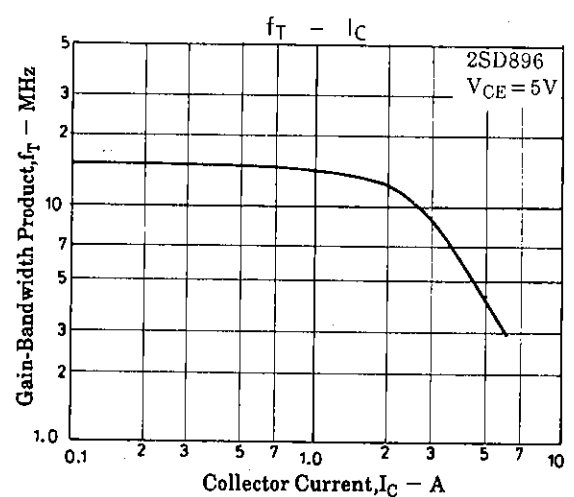
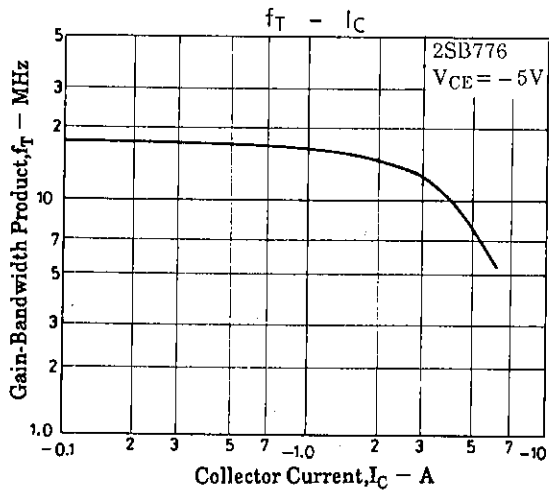
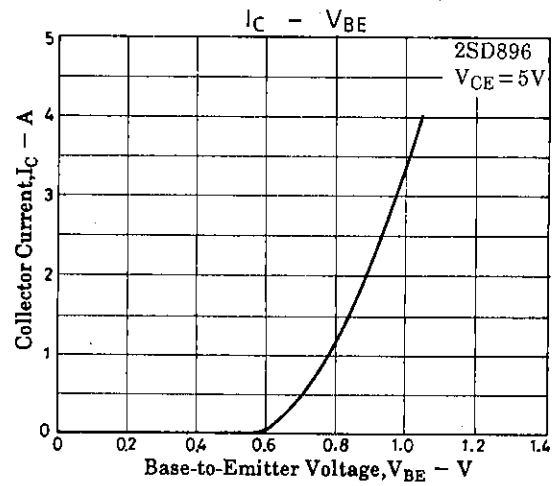
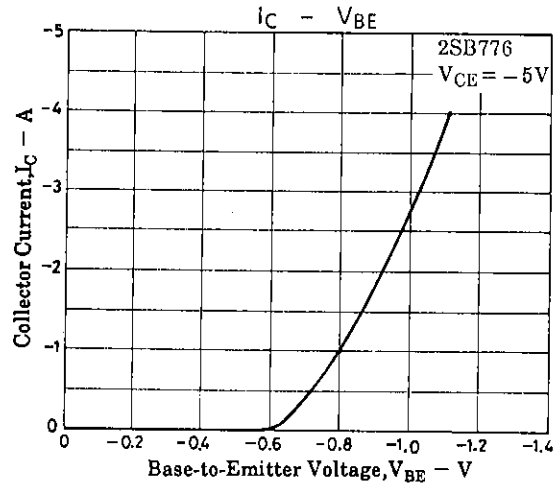
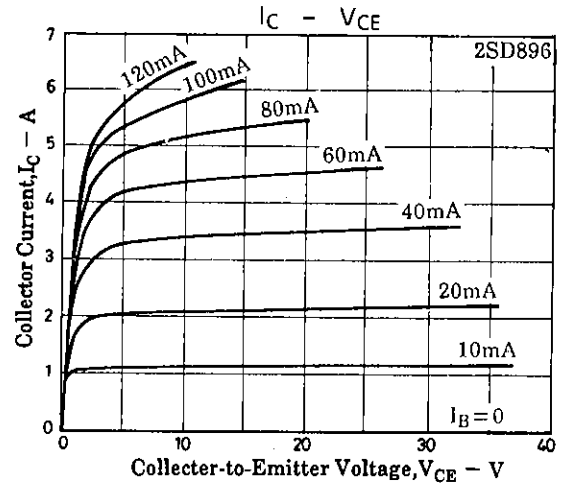
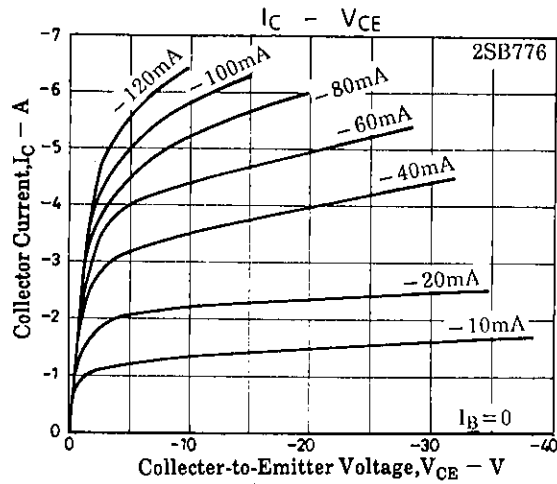


Package Dimensions 2022A

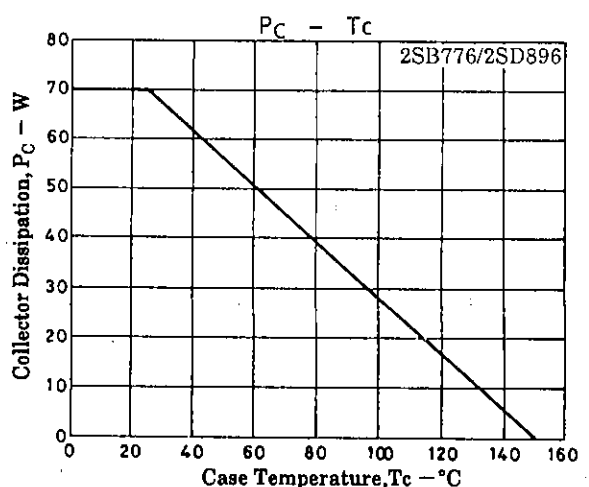
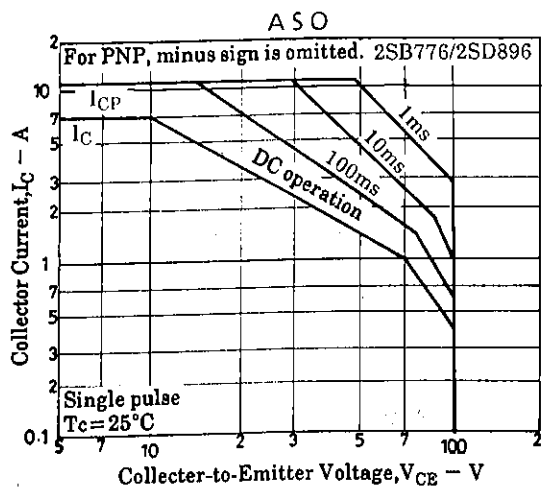
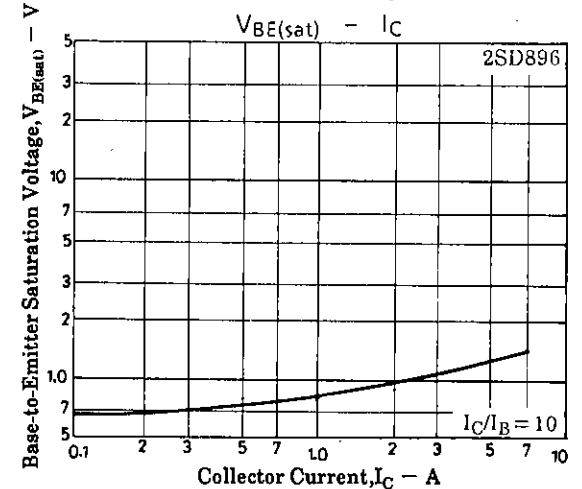
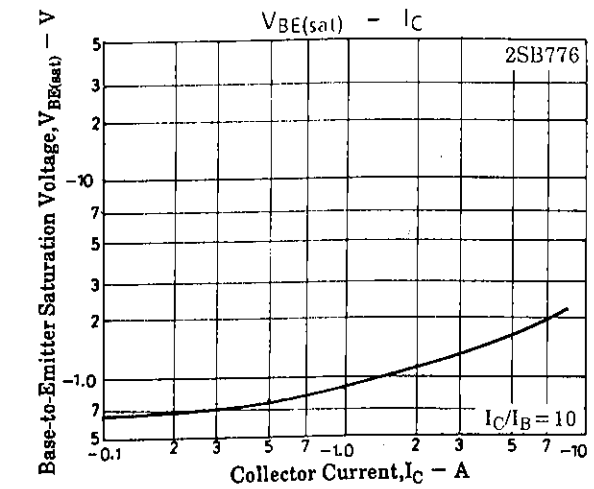
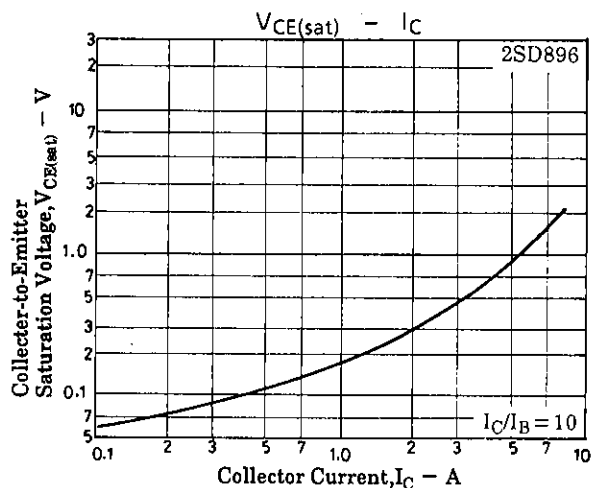
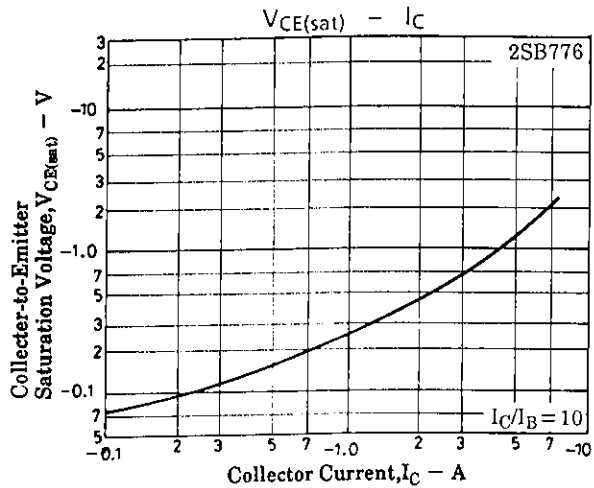
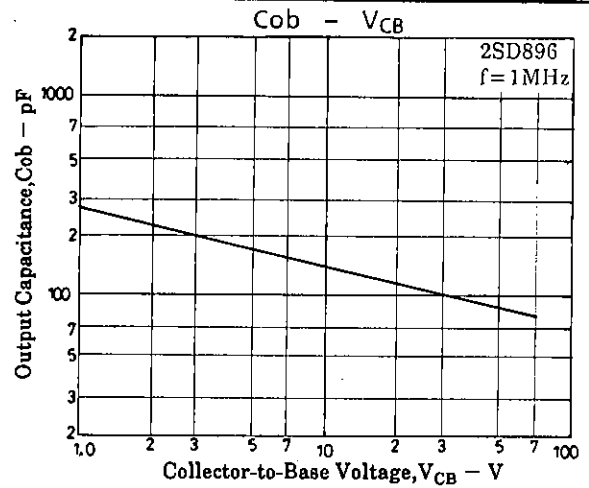
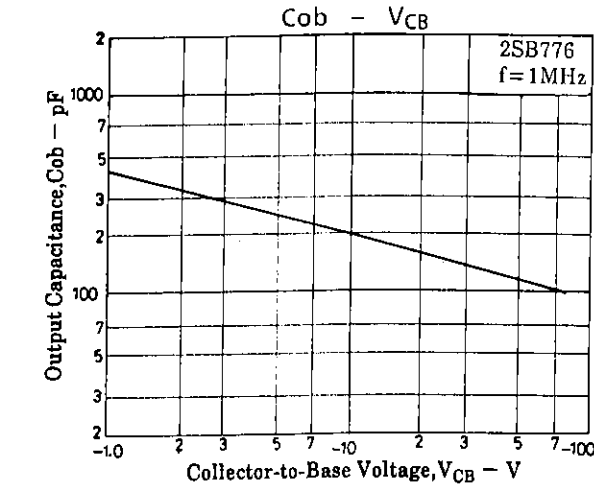
(unit : mm)



2SB776/2SD896



2SB776/2SD896



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