

# 2SB793, 2SB793A

## Silicon PNP Epitaxial Planar Type

For low-frequency output amplification

Complementary pair with 2SD973 and 2SD973A

### ■ Features

- Low collector-emitter saturation voltage  $V_{CE0(sat)}$
- An M type mold package that allows easy manual and automatic insertion. Can be firmly mounted flush to PCB surface.

### ■ Absolute Maximum Ratings ( $T_a=25^\circ\text{C}$ )

Item	Symbol	Value	Unit
Collector-Base Voltage	2SB793	-30	V
	2SB793A	-60	
Collector-Emitter Voltage	2SB793	-25	V
	2SB793A	-50	
Emitter-Base Voltage	$V_{EBO}$	-5	V
Peak Collector Voltage	$I_{CP}$	-1.5	A
Collector Current	$I_C$	-1	A
Collector Power Dissipation	$P_C^*$	1	W
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55 ~ +150	$^\circ\text{C}$

\* Copper foil on PCB against Collector: 1.7mm thick,  $1\text{cm}^2$  in area

### ■ Electrical Characteristics ( $T_a=25^\circ\text{C}$ )

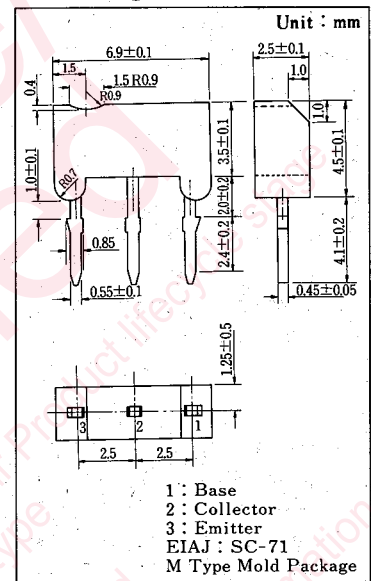
Item	Symbol	Condition	min.	typ.	max.	Unit
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = -20\text{V}, I_E = 0$			-0.1	$\mu\text{A}$
Collector-Base Voltage	2SB793	$I_C = -10\mu\text{A}, I_E = 0$	-30			V
	2SB793A		-60			
Collector-Emitter Voltage	2SB793	$I_C = -2\text{mA}, I_E = 0$	-25			V
	2SB793A		-50			
Emitter-Base Voltage	$V_{EBO}$	$I_E = -10\mu\text{A}, I_C = 0$	-5			V
DC Current Gain	$h_{FE1}^{*1}$	$V_{CE} = -10\text{V}, I_C = -500\text{mA}^{*2}$	85		340	
	$h_{FE2}$	$V_{CE} = -5\text{V}, I_C = -1\text{A}^{*2}$	50			
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -500\text{mA}, I_B = -50\text{mA}$			-0.4	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = -500\text{mA}, I_B = -50\text{mA}$			-1.2	V
Transition Frequency	$f_T$	$V_{CB} = -10\text{V}, I_E = 50\text{mA}, f = 200\text{MHz}$		200		MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$		20	30	pF

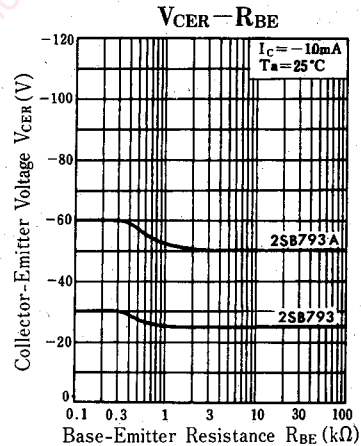
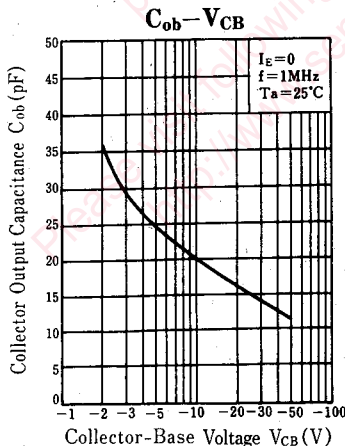
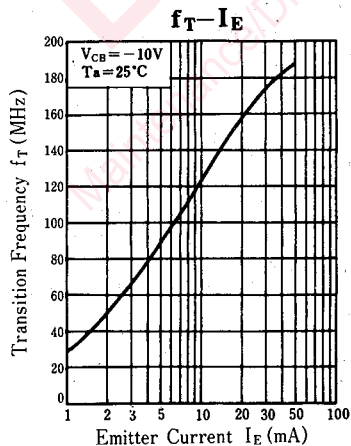
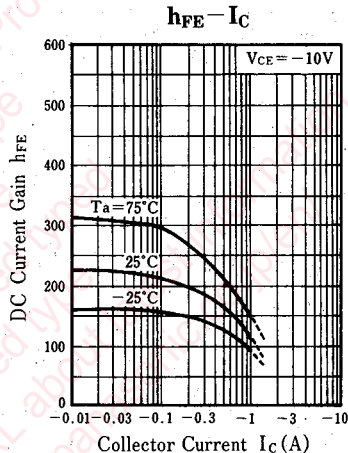
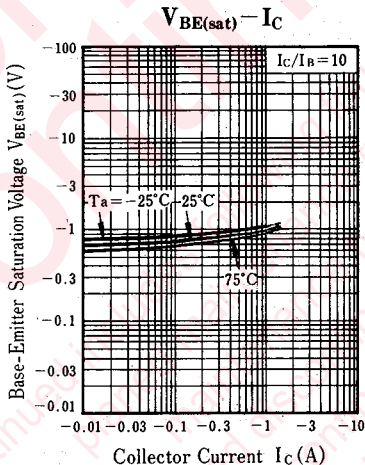
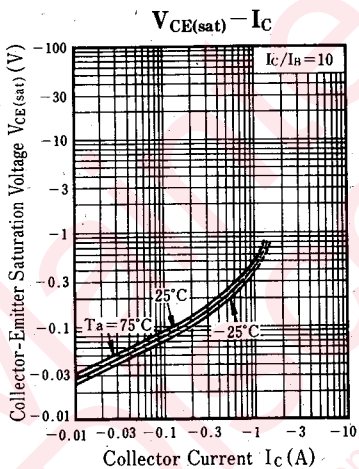
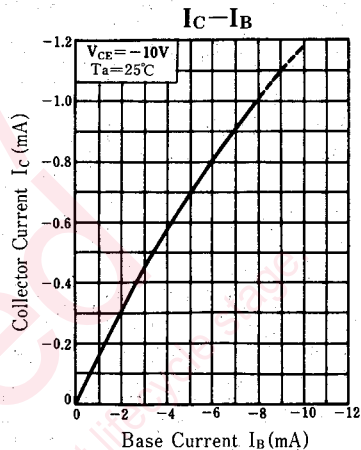
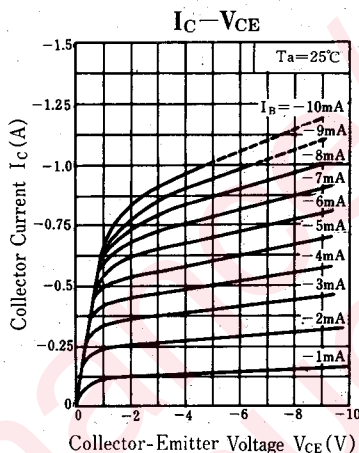
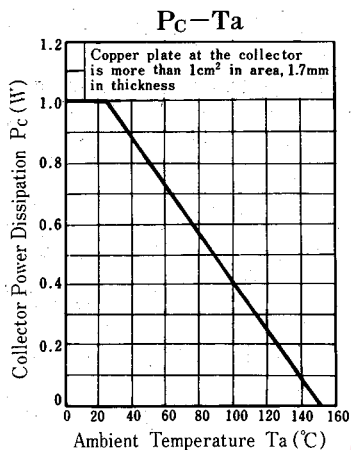
\*2 Pulse Measurement

\*1  $h_{FE1}$  Ranking

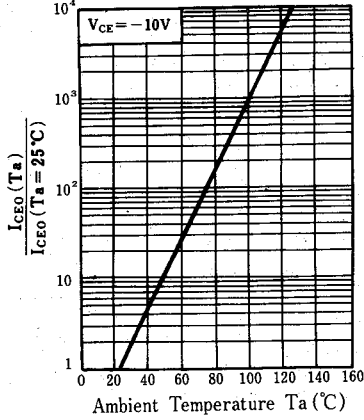
Rank	Q	R	S
$h_{FE1}$	85 ~ 170	120 ~ 240	170 ~ 340

### ■ Package Dimensions

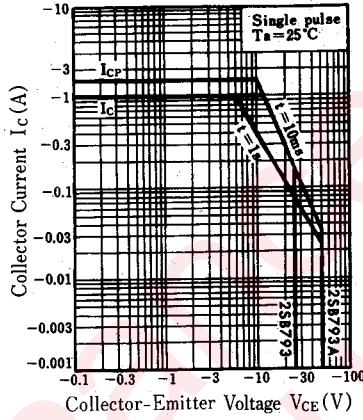




**$I_{CE0} - T_a$**



**Area of Safe Operation (ASO)**



Maintenance/Discontinued includes following four Product lifecycle stage.  
 planned maintenance type  
 maintenance type  
 planned discontinued type  
 discontinued type  
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