

2SA794, 2SA794A

Silicon PNP Epitaxial Planar Type

AF Output Drivers

Complementary Pair with 2SC1567, 2SC1567A

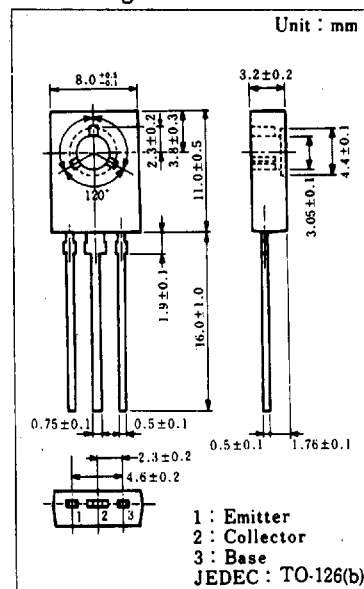
■ Features

- High collector-emitter voltage (V_{CE0})
- Optimum for 40~100W AF output driver
- TO-126 package, no insulator needed when fixing to a heat sink

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

Item	Symbol	Value	Unit
Collector-base voltage	2SA794	-100	V
	2SA794A	-120	
Collector-emitter voltage	2SA794	-100	V
	2SA794A	-120	
Emitter-base voltage	V_{EBO}	-5	V
Peak collector current	I_{CP}	-1	A
Collector current	I_C	-0.5	A
Collector power dissipation	P_C	1.2	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 ~ +150	$^\circ\text{C}$

■ Package Dimensions



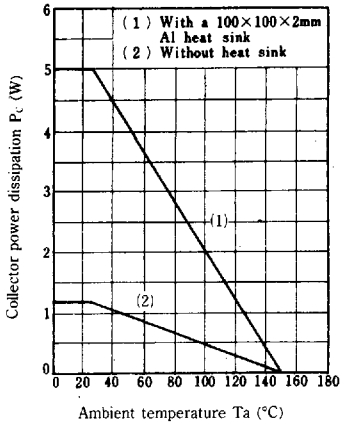
■ Electrical Characteristics ($T_c=25^\circ\text{C}$)

Item	Symbol	Condition	min.	typ.	max.	Unit
Collector-emitter voltage	2SA794	$I_C = -100 \mu\text{A}, I_B = 0$	-100			V
	2SA794A		-120			
Emitter-base voltage	V_{EBO}	$I_E = -1 \mu\text{A}, I_C = 0$	-5			V
DC current gain	h_{FE1}^*	$V_{CE} = -10 \text{V}, I_C = -150 \text{mA}$	65	160	330	
	h_{FE2}	$V_{CE} = -5 \text{V}, I_C = -500 \text{mA}$	50	100		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500 \text{mA}, I_B = -50 \text{mA}$		-0.2	-0.4	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -500 \text{mA}, I_B = -50 \text{mA}$		-0.85	-1.2	V
Transition frequency	f_T	$V_{CB} = -10 \text{V}, I_E = 50 \text{mA}, f = 200 \text{MHz}$		120		MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10 \text{V}, I_E = 0, f = 1 \text{MHz}$		20	30	pF

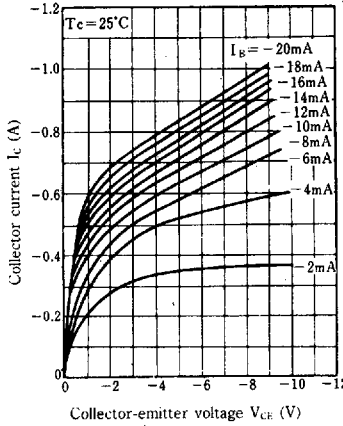
* h_{FE1} Classifications

Class	P	Q	R	S
h_{FE1}	65~110	90~155	130~220	185~330

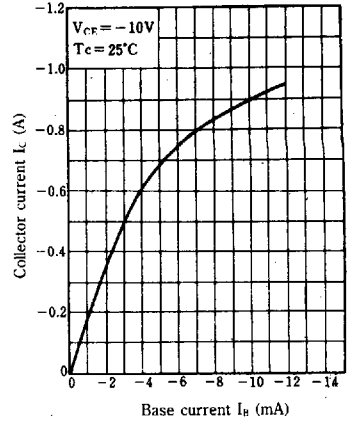
$P_c - T_a$



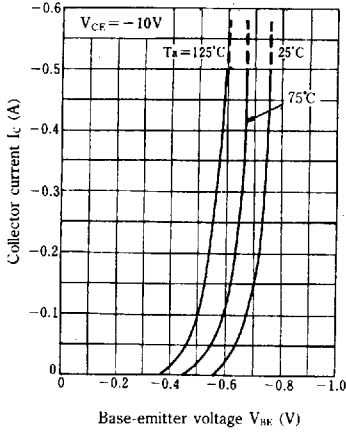
$I_c - V_{CE}$



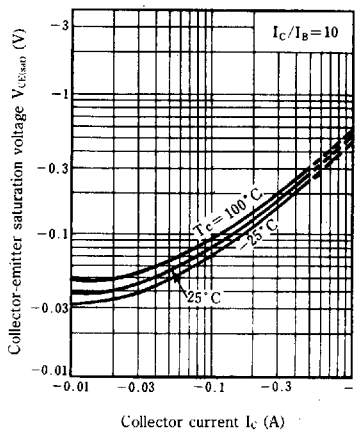
$I_c - I_B$



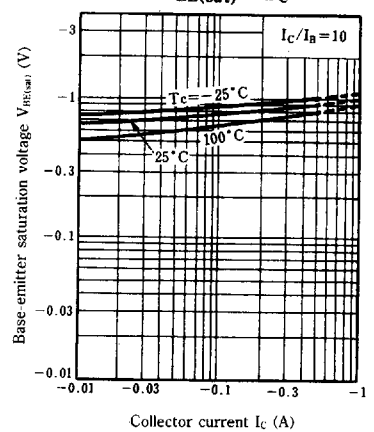
$I_c - V_{BE}$



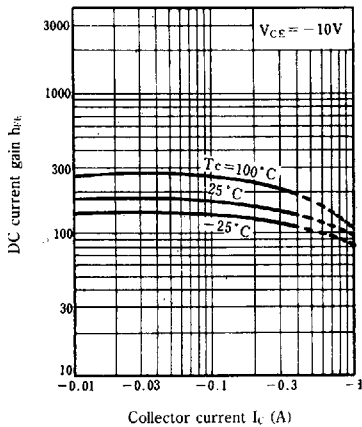
$V_{CE(sat)} - I_c$



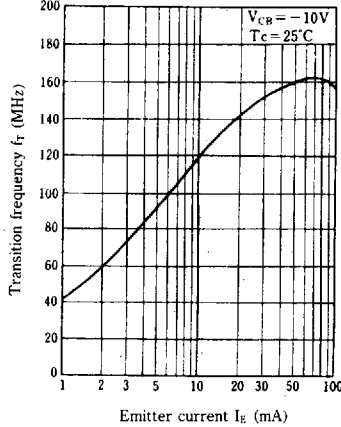
$V_{BE(sat)} - I_c$



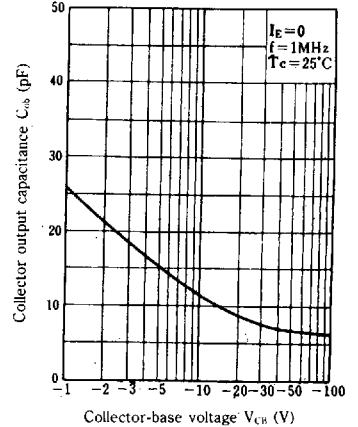
$h_{FE} - I_c$



$f_T - I_E$



$C_{ob} - V_{CB}$



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