

2SA1096, 2SA1096A

Silicon PNP epitaxial planar type

For low-frequency power amplification

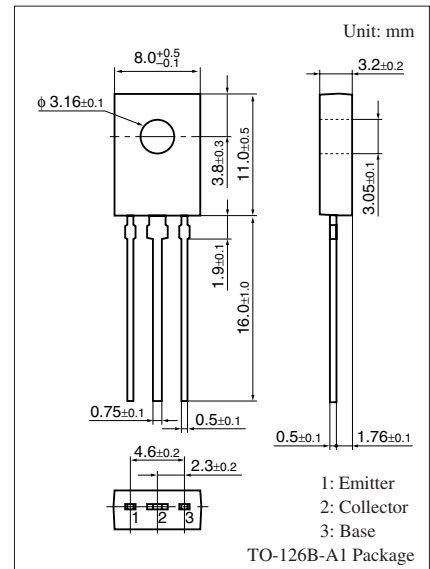
Complementary to 2SC2497, 2SC2497A

■ Features

- Output of 5 W can be obtained by a complementary pair with 2SC2497 and 2SC2497A
- TO-126B package which requires no insulation plate for installation to the heat sink

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

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	-70	V
Collector-emitter voltage (Base open)	2SA1096	-50	V
	2SA1096A	-60	
Emitter-base voltage (Collector open)	V_{EBO}	-5	V
Collector current	I_{C}	-2	A
Peak collector current	I_{CP}	-3	A
Collector power dissipation	P_{C}	1.2	W
Junction temperature	T_{j}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$



■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

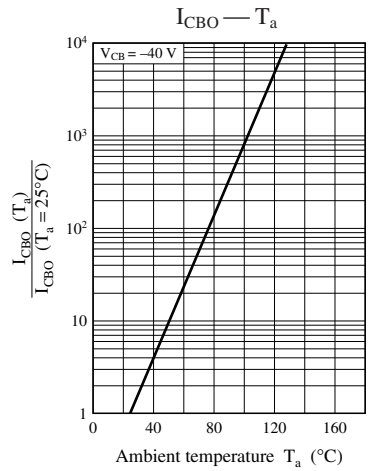
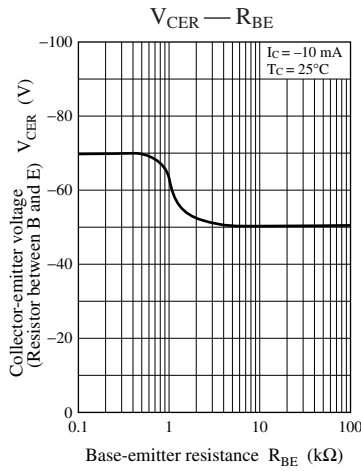
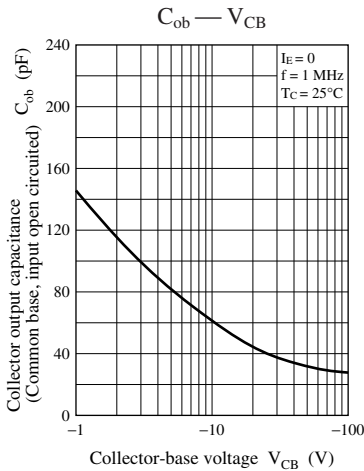
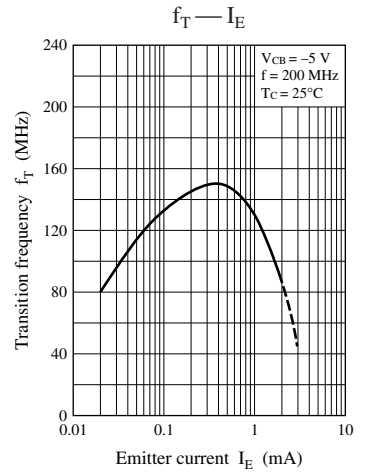
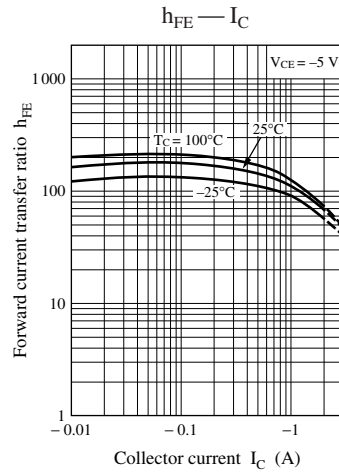
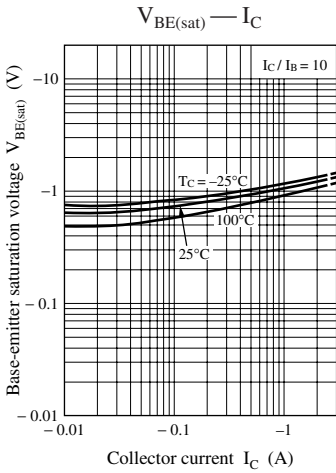
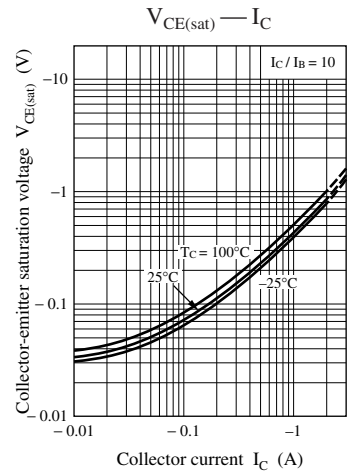
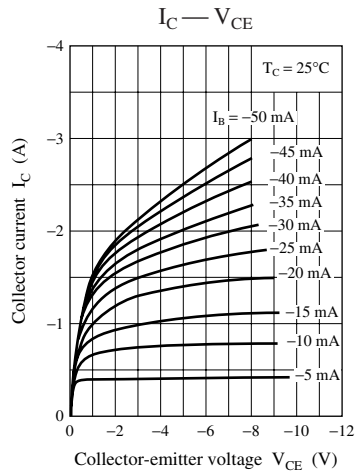
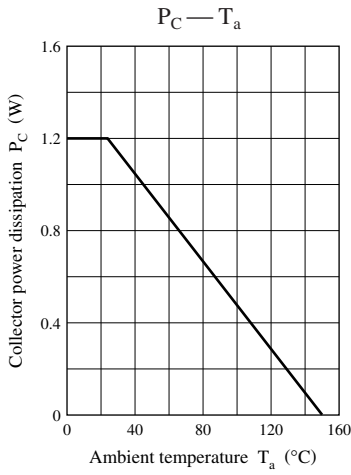
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	$I_{\text{C}} = -1 \text{ mA}$, $I_{\text{E}} = 0$	-70			V
Collector-emitter voltage (Base open)	V_{CEO}	$I_{\text{C}} = -2 \text{ mA}$, $I_{\text{B}} = 0$	-50			V
			-60			
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{\text{CB}} = -20 \text{ V}$, $I_{\text{E}} = 0$			-1	μA
Collector-emitter cutoff current (Base open)	I_{CEO}	$V_{\text{CE}} = -10 \text{ V}$, $I_{\text{B}} = 0$			-100	μA
Emitter-base cutoff current (Collector open)	I_{EBO}	$V_{\text{EB}} = -5 \text{ V}$, $I_{\text{C}} = 0$			-10	μA
Forward current transfer ratio ^{*1,2}	h_{FE}	$V_{\text{CE}} = -5 \text{ V}$, $I_{\text{C}} = -1 \text{ A}$	80		220	—
Collector-emitter saturation voltage	$V_{\text{CE(sat)}}$	$I_{\text{C}} = -1.5 \text{ A}$, $I_{\text{B}} = -0.15 \text{ A}$			-1	V
Base-emitter saturation voltage	$V_{\text{BE(sat)}}$	$I_{\text{C}} = -1.5 \text{ A}$, $I_{\text{B}} = -0.15 \text{ A}$			-1.5	V
Transition frequency	f_{T}	$V_{\text{CB}} = -5 \text{ V}$, $I_{\text{E}} = 0.5 \text{ A}$, $f = 200 \text{ MHz}$		150		MHz
Collector output capacitance (Common base, input open circuited)	C_{ob}	$V_{\text{CB}} = -20 \text{ V}$, $I_{\text{E}} = 0$, $f = 1 \text{ MHz}$		55		pF

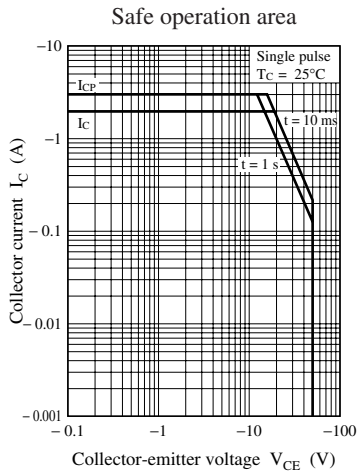
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. *1: Pulse measurement

*2: Rank classification

Rank	Q	R
h_{FE}	80 to 160	120 to 220





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