

2SC2497, 2SC2497A

Silicon NPN Epitaxial Planar Type

AF Power Amplifier

Complementary Pair with 2SA1096, 2SA1096A

■ Features

- High collector-emitter voltage (V_{CE0})
- 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	V_{CB0}	70	V
Collector-emitter voltage	2SC2497	50	V
	2SC2497A	60	
Emitter-base voltage	V_{EB0}	5	V
Peak collector current	I_{CP}	3	A
Collector current	I_C	1.5	A
Collector power dissipation	P_C	1.2 ^{*1}	W
		5 ^{*2}	
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 ~ +150	$^\circ\text{C}$

*1 Without heat sink

*2 With a 100×100×2mm Al heat sink

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

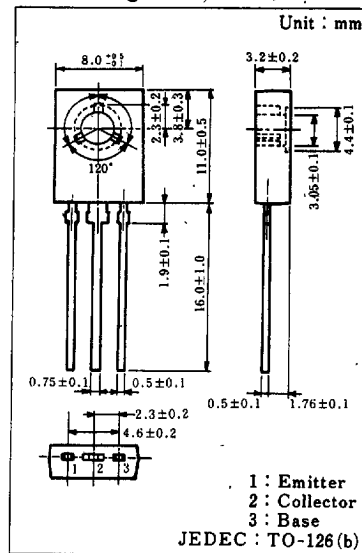
Item	Symbol	Condition	min.	typ.	max.	Unit
Collector cutoff current	I_{CB0}	$V_{CB}=20\text{ V}, I_E=0$			1	μA
	I_{CE0}	$V_{CE}=10\text{ V}, I_B=0$			100	
Emitter cutoff current	I_{EB0}	$V_{EB}=5\text{ V}, I_C=0$			10	μA
Collector-base voltage	V_{CB0}	$I_C=1\text{ mA}, I_E=0$	70			V
Collector-emitter voltage	2SC2497	$I_C=2\text{ mA}, I_B=0$	50			V
	2SC2497A		60			
DC current gain	h_{FE}^{*1}	$V_{CE}=5\text{ V}, I_C=1\text{ A}^{*2}$	50		220	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=1.5\text{ A}, I_B=0.15\text{ A}^{*2}$			1	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=1.5\text{ A}, I_B=0.15\text{ A}^{*2}$			1.5	V
Transition frequency	f_T	$V_{CB}=5\text{ V}, I_E=-0.5\text{ A}^{*2}, f=200\text{ MHz}$		150		MHz
Collector output capacitance	C_{ob}	$V_{CB}=20\text{ V}, I_E=0, f=1\text{ MHz}$		35		pF

*2 バルス測定

*1 h_{FE} Classifications

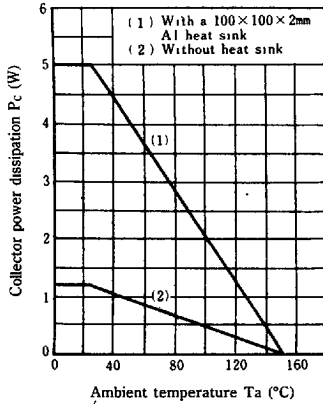
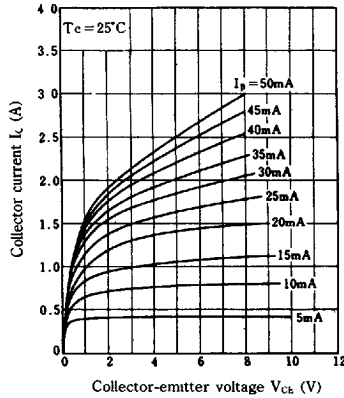
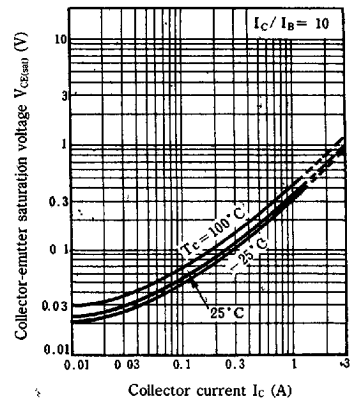
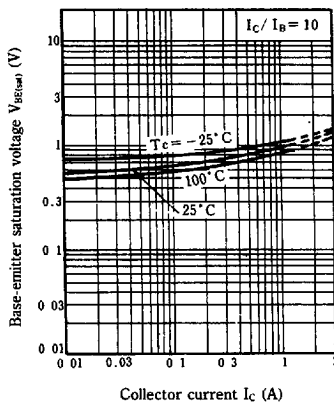
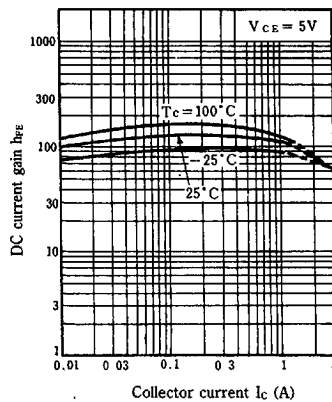
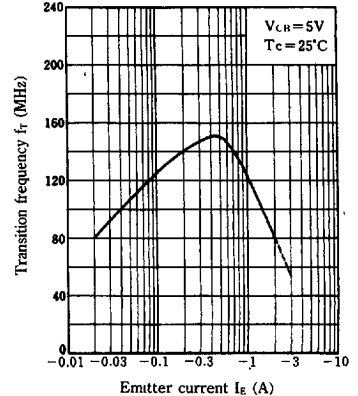
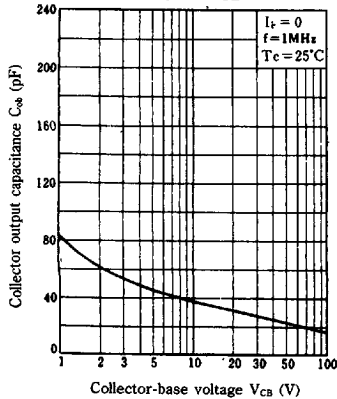
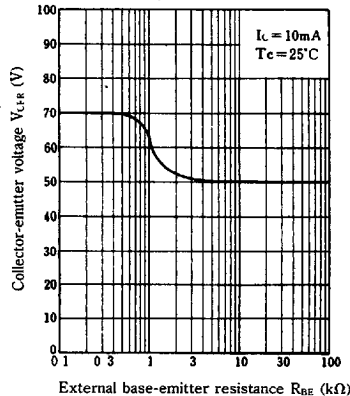
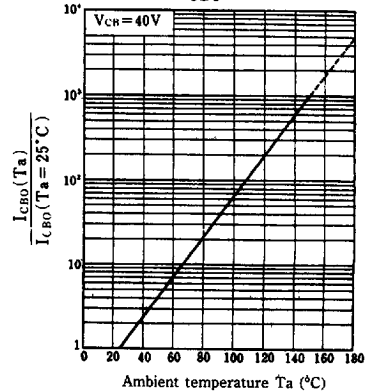
Class	P	Q	R
h_{FE}	50 ~ 100	80 ~ 160	120 ~ 220

■ Package Dimensions



Panasonic

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$P_C - T_a$  $I_C - V_{CE}$  $V_{CE(sat)} - I_C$  $V_{BE(sat)} - I_C$  $h_{FE} - I_C$  $f_T - I_E$  $C_{ob} - V_{CB}$  $V_{CE} - R_{BE}$  $I_{CBO} - T_a$ 

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