

# 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 <sup>*1</sup>	W
		5 <sup>*2</sup>	
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 ~ +150	°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	$\mu\text{A}$
	$I_{CE0}$	$V_{CE}=10\text{V}, I_B=0$			100	
Emitter cutoff current	$I_{EB0}$	$V_{EB}=5\text{V}, I_C=0$			10	$\mu\text{A}$
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 パルス測定

### \*1 $h_{FE}$ Classifications

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

### ■ Package Dimensions

