

# 2SC5996A

FOR LOW FREQUENCY AMPLIFY APPLICATION  
SILICON NPN EPITAXIAL TYPE

## DESCRIPTION

ISAHAYA 2SC5996A is a super mini package resin sealed silicon NPN epitaxial transistor for muting and switching application

## FEATURE

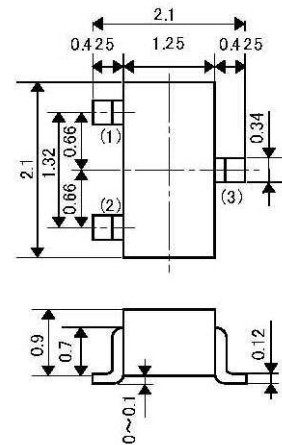
- High Emitter to Base voltage VEBO=40V
- High Reverse hFE
- Low ON RESISTANCE. RON=1Ω
- Small package for mounting

## APPLICATION

For muting, switching application

## OUTLINE DRAWING

Unit : mm



JEITA SC-70

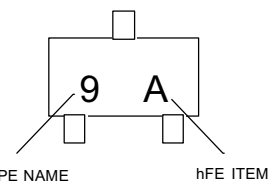
## TERMINAL CONNECTOR

- ①: BASE
- ②: EMITTER
- ③: COLLECTOR

## MAXIMUM RATINGS (Ta=25°C)

Symbol	Parameter	Ratings	Unit
V <sub>CB0</sub>	Collector to Base voltage	50	V
V <sub>CE0</sub>	Collector to Emitter voltage	20	V
V <sub>EBO</sub>	Emitter to Base voltage	40	V
I <sub>C</sub>	Collector current	200	mA
P <sub>C</sub>	Collector dissipation	150	mW
T <sub>j</sub>	Junction temperature	+125	°C
T <sub>stg</sub>	Storage temprature	-55 ~ +125	°C

## MARKING



## ELECTRICAL CHARACTERISTICS (Ta=25°C)

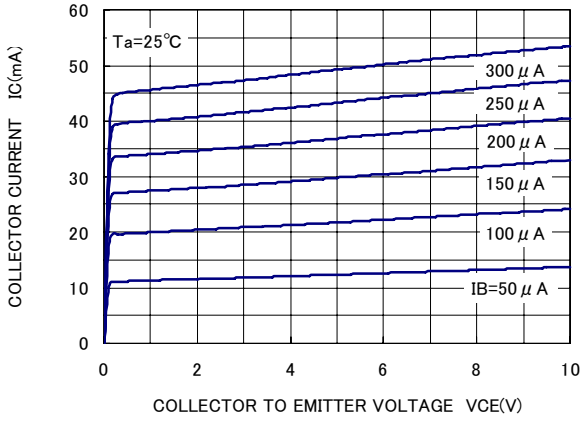
Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
I <sub>CB0</sub>	Collector cut off current	V <sub>CB</sub> =50V, I <sub>E</sub> =0mA			0.1	μA
I <sub>EBO</sub>	Emitter cut off current	V <sub>EB</sub> =40V, I <sub>C</sub> =0mA			0.1	μA
h <sub>FE</sub>	DC forward current gain	V <sub>CE</sub> =2V, I <sub>C</sub> =4mA	200		1200	
V <sub>CE(sat)</sub>	C to E saturation voltage	I <sub>C</sub> =30mA, I <sub>B</sub> =3mA		30		mV
f <sub>T</sub>	Gain bandwidth product	V <sub>CE</sub> =6V, I <sub>C</sub> =4mA		30		MHz
C <sub>ob</sub>	Collector output capacitance	V <sub>CB</sub> =10V, I <sub>E</sub> =0mA, f=1MHz		5.0		pF

Item	A	B
h <sub>FE</sub>	200 to 700	350 to 1200
Marking	9A	9B

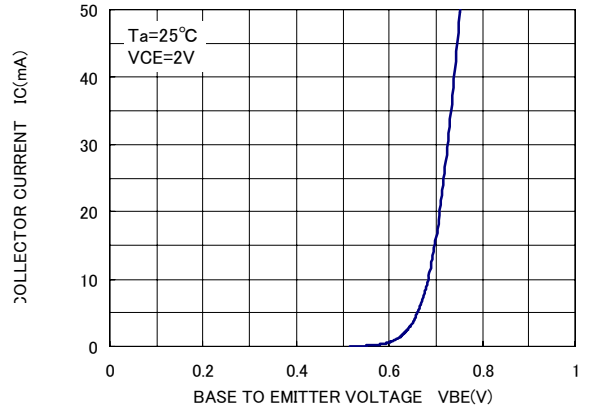
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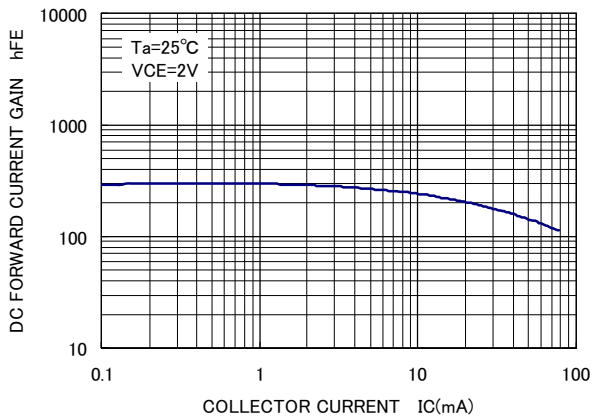
COMMON EMITTER OUTPUT



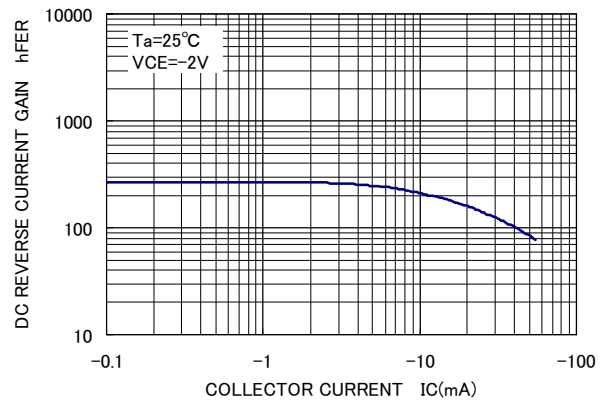
COMMON EMITTER TRANSFER



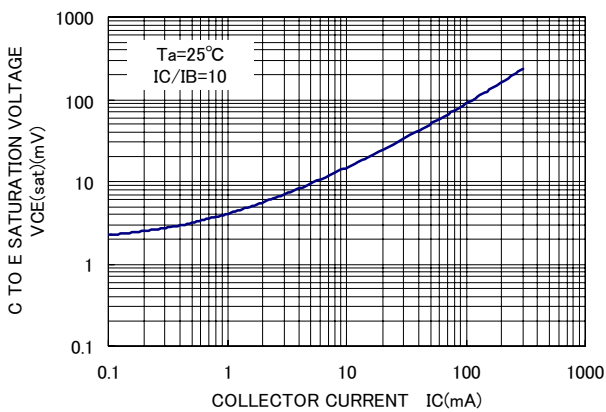
DC FORWARD CURRENT GAIN  
VS. COLLECTOR CURRENT



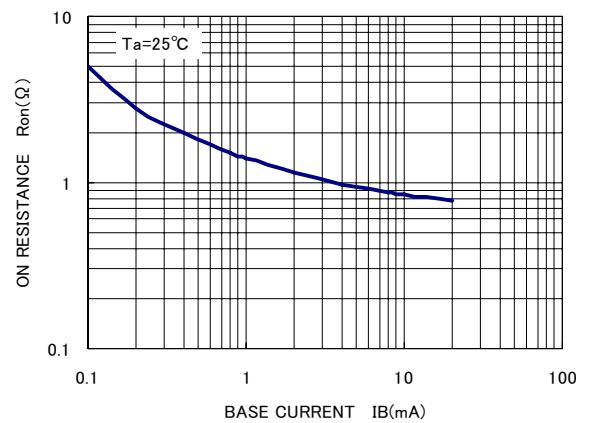
DC REVERSE CURRENT GAIN  
VS. COLLECTOR CURRENT



COLLECTOR TO EMITTER SATURATION VOLTAGE  
VS. COLLECTOR CURRENT



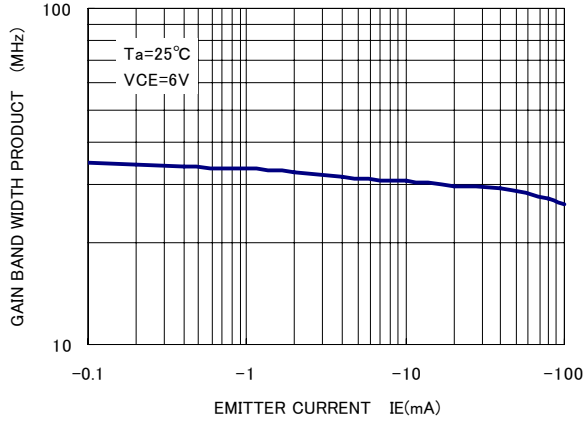
ON RESISTANCE VS. BASE CURRENT



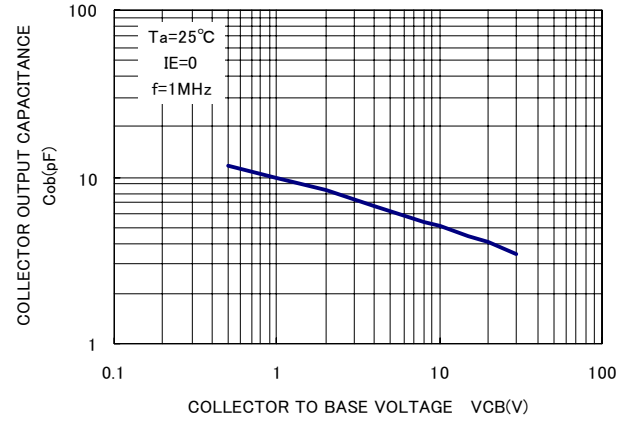
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FOR LOW FREQUENCY AMPLIFY APPLICATION  
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GAIN BAND WIDTH PRODUCT VS.  
EMITTER CURRENT



COLLECTOR OUTPUT CAPACITANCE  
VS. COLLECTOR TO BASE VOLTAGE





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