

PRELIMINARY
 Notice: This is not a final specification.
 Some parametric limits are subject to
 change.

SMALL-SIGNAL TRANSISTOR

2SC5996B

FOR LOW FREQUENCY AMPLIFY APPLICATION
 SILICON NPN EPITAXIAL TYPE

DESCRIPTION

ISAHAYA 2SC5996B is a super mini package resin sealed silicon NPN epitaxial transistor for muting and switching application

FEATURE

High Emitter to Base voltage $V_{EBO}=40V$

High Reverse hFE

Low ON RESISTANCE. $R_{ON}=0.75$

Small package for mounting

APPLICATION

For muting, switching application

MAXIMUM RATINGS (Ta=25 °C)

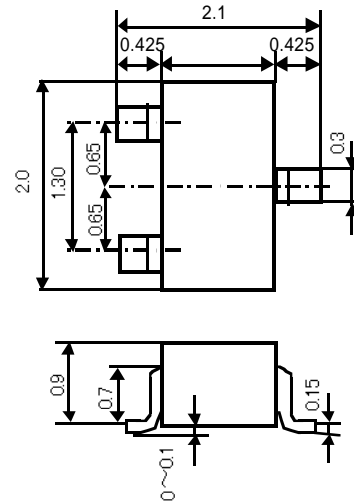
Symbol	Parameter	Ratings	Unit
V_{CBO}	Collector to Base voltage	40	V
V_{CEO}	Collector to Emitter voltage	9	V
V_{EBO}	Emitter to Base voltage	40	V
I_C	Collector current	200	mA
P_C	Collector dissipation	150	mW
T_j	Junction temperature	+125	
T_{stg}	Storage temprature	-55 ~ +125	

ELECTRICAL CHARACTERISTICS (Ta=25 °C)

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
I_{CBO}	Collector cut off current	$V_{CB}=40V, I_E=0mA$			0.1	μA
I_{EBO}	Emitter cut off current	$V_{EB}=40V, I_C=0mA$			0.1	μA
hFE	DC forward current gain	$V_{CE}=2V, I_C=4mA$	700		2200	
$V_{CE(sat)}$	C to E saturation voltage	$I_C=30mA, I_B=3mA$		25		mV
fT	Gain bandwidth product	$V_{CE}=6V, I_C=4mA$		150		MHz
C_{ob}	Collector output capacitance	$V_{CB}=10V, I_E=0mA, f=1MHz$		3.0		pF

OUTLINE DRAWING

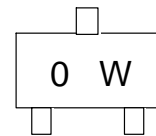
Unit : mm



JEITA SC-70

TERMINAL CONNECTOR
 BASE
 EMITTER
 COLLECTOR

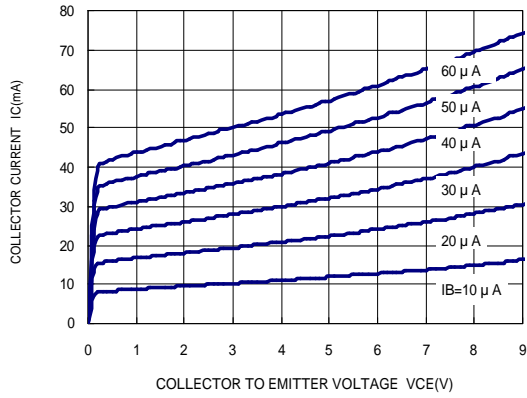
MARKING



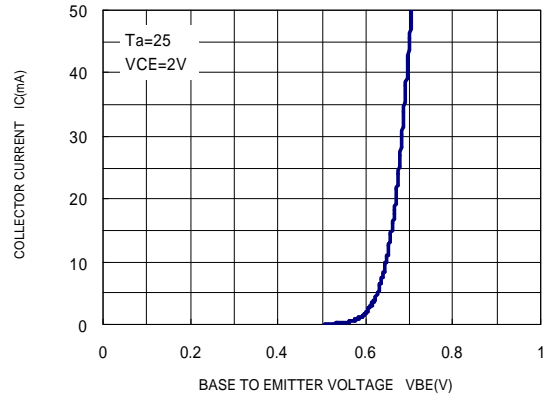
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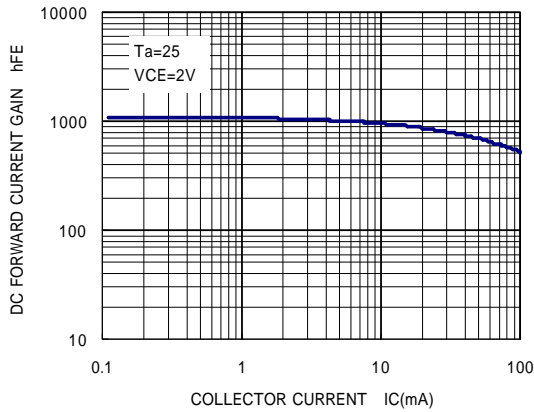
COMMON EMITTER OUTPUT



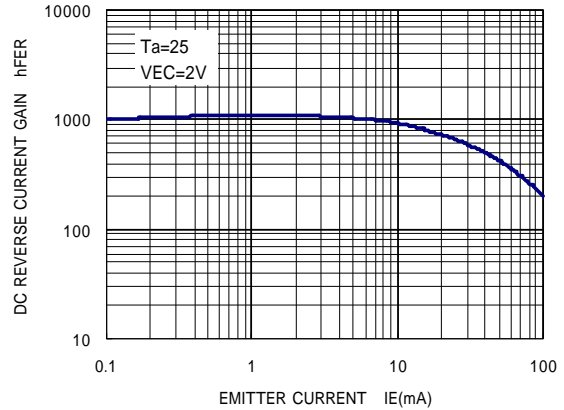
COMMON EMITTER TRANSFER



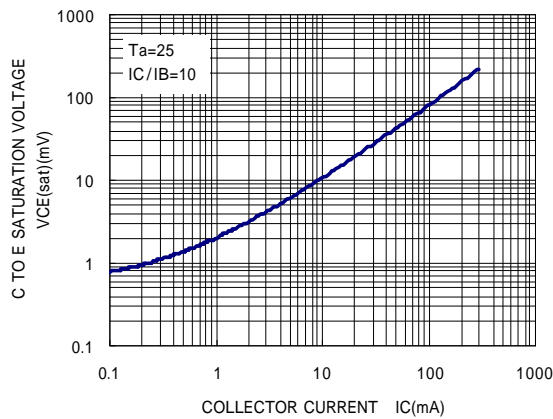
DC FORWARD CURRENT GAIN
VS. COLLECTOR CURRENT



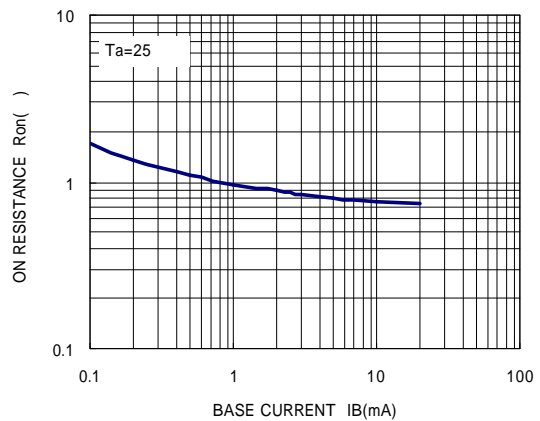
DC REVERSE CURRENT GAIN
VS. COLLECTOR CURRENT



COLLECTOR TO EMITTER SATURATION VOLTAGE
VS. COLLECTOR CURRENT



ON RESISTANCE VS. BASE CURRENT

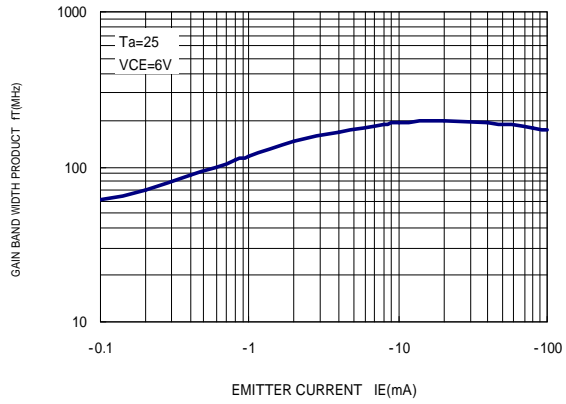


SMALL-SIGNAL TRANSISTOR

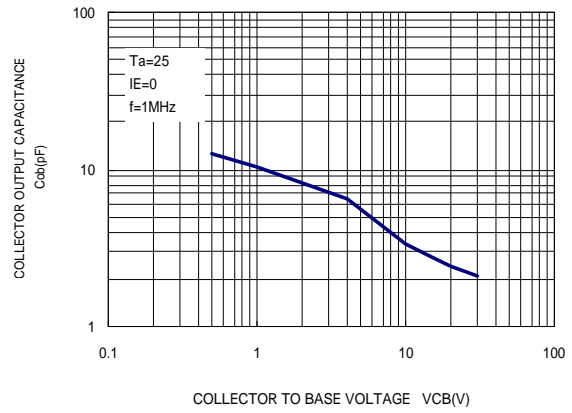
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FOR LOW FREQUENCY AMPLIFY APPLICATION
SILICON NPN EPITAXIAL TYPE

GAIN BAND WIDTH PRODUCT VS.
EMITTER CURRENT



COLLECTOR OUTPUT CAPACITANCE
VS. COLLECTOR TO BASE VOLTAGE



ISAHAYA ELECTRONICS CORPORATION



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