

2SC5974BFOR LOW FREQUENCY AMPLIFY APPLICATION
SILICON NPN EPITAXIAL TYPE**PRELIMINARY**
Notices: This is not a final specification.
Some parametric limits are subject to
change.**DESCRIPTION**

ISAHAYA 2SC5974B is a 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)

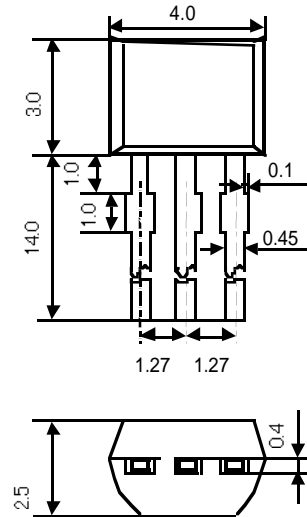
Symbol	Parameter	Ratings	Unit
V_{CBO}	Collector to Base voltage	40	V
V_{CEO}	Collector to Emitter voltage	9	V
V_{EBO}	Emitter to Base voltage	40	V
I_C	Collector current	200	mA
P_C	Collector dissipation	450	mW
T_j	Junction temperature	+125	
T_{stg}	Storage temperature	-55 ~ +125	

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

**TERMINAL CONNECTOR**

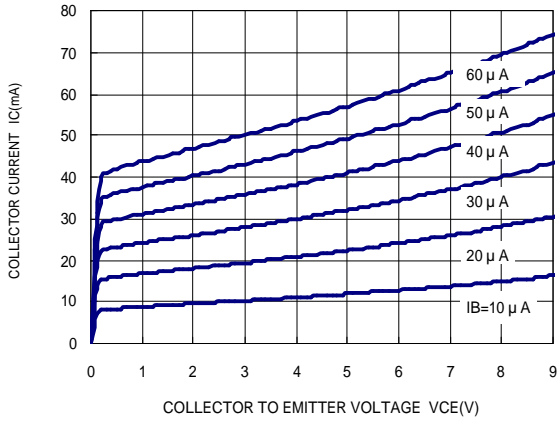
- ① : EMITTER
② : COLLECTOR
③ : BASE

EIJA: -

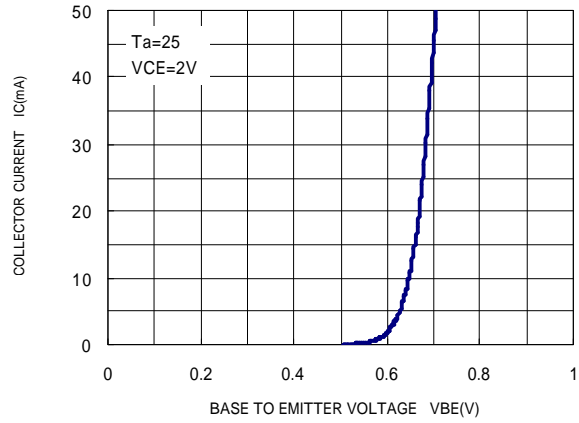
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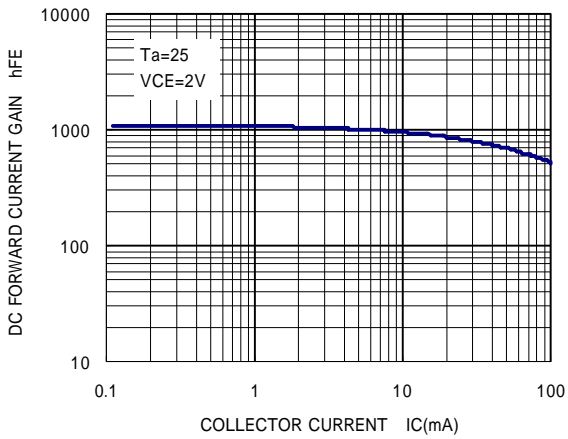
COMMON EMITTER OUTPUT



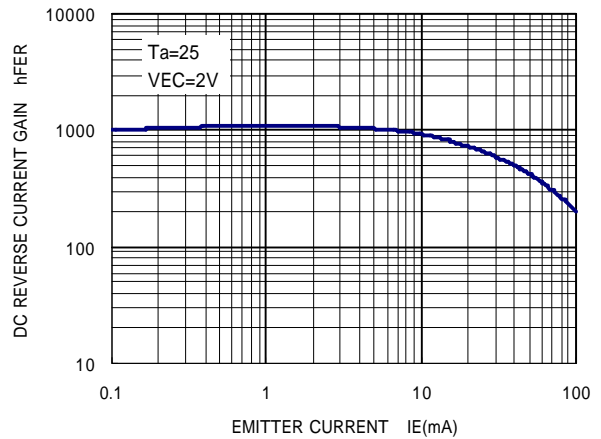
COMMON EMITTER TRANSFER



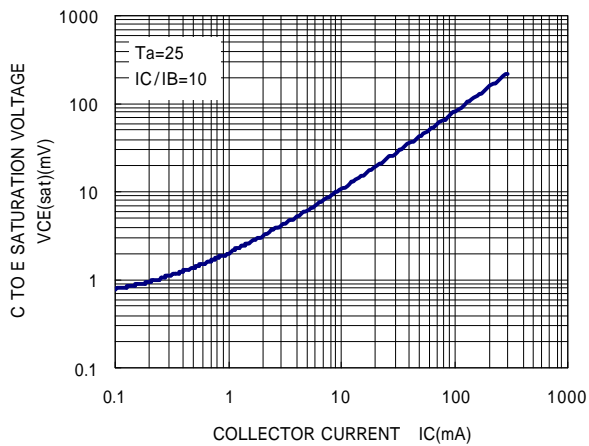
DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT



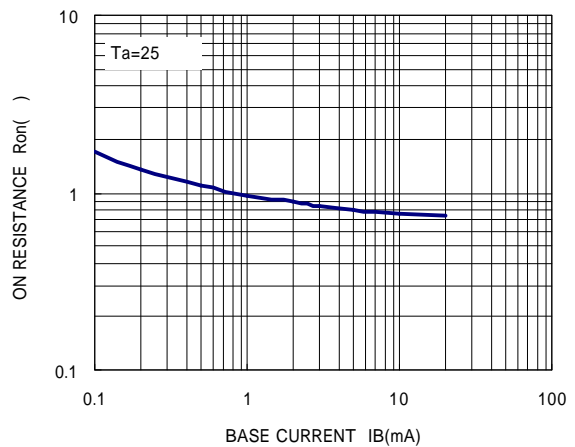
DC REVERSE CURRENT GAIN VS. COLLECTOR CURRENT



COLLECTOR TO EMITTER SATURATION VOLTAGE VS. COLLECTOR CURRENT



ON RESISTANCE VS. BASE CURRENT

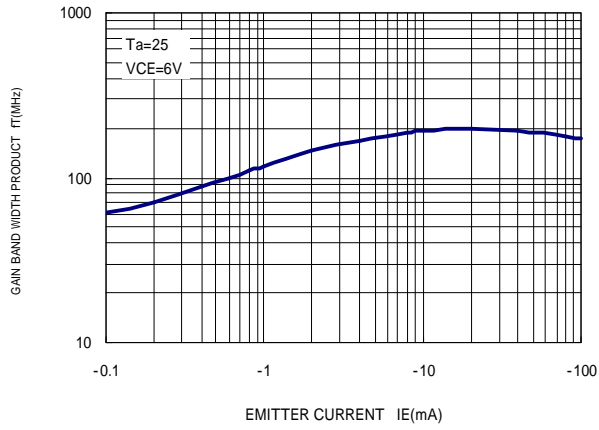


SMALL-SIGNAL TRANSISTOR

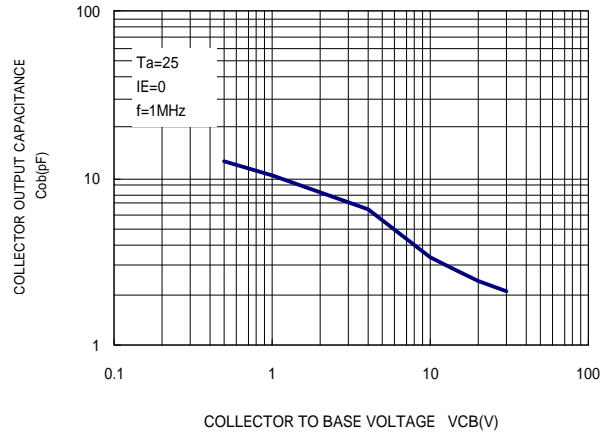
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FOR LOW FREQUENCY AMPLIFY APPLICATION
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GAIN BAND WIDTH PRODUCT VS.
EMITTER CURRENT



COLLECTOR OUTPUT CAPACITANCE
VS. COLLECTOR TO BASE VOLTAGE





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