

2SC5974AFOR LOW FREQUENCY AMPLIFY APPLICATION
SILICON NPN EPITAXIAL TYPE**DESCRIPTION**

ISAHAYA 2SC5974A 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 h_{FE}

Low ON RESISTANCE. $R_{ON}=1$

Small package for mounting

APPLICATION

For muting, switching application

MAXIMUM RATINGS (Ta=25 °C)

Symbol	Parameter	Ratings	Unit
V_{CBO}	Collector to Base voltage	50	V
V_{CEO}	Collector to Emitter voltage	20	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	

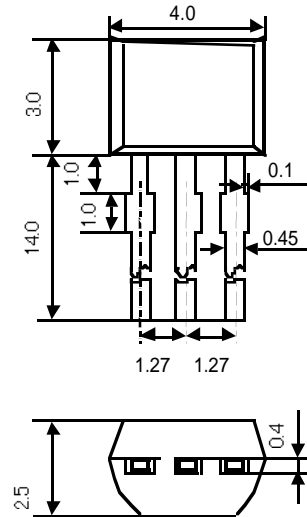
ELECTRICAL CHARACTERISTICS (Ta=25 °C)

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
I_{CBO}	Collector cut off current	$V_{CB}=50V, I_E=0mA$			0.1	μA
I_{EBO}	Emitter cut off current	$V_{EB}=40V, I_C=0mA$			0.1	μA
h_{FE}	DC forward current gain	$V_{CE}=2V, I_C=4mA$	200		1200	
$V_{CE(sat)}$	C to E saturation voltage	$I_C=30mA, I_B=3mA$		30		mV
f_T	Gain bandwidth product	$V_{CE}=6V, I_C=4mA$		30		MHz
C_{ob}	Collector output capacitance	$V_{CB}=10V, I_E=0mA, f=1MHz$		5.0		pF

Item	A	B
h_{FE}	200 to 700	350 to 1200

OUTLINE DRAWING

Unit:mm

**TERMINAL CONNECTOR**

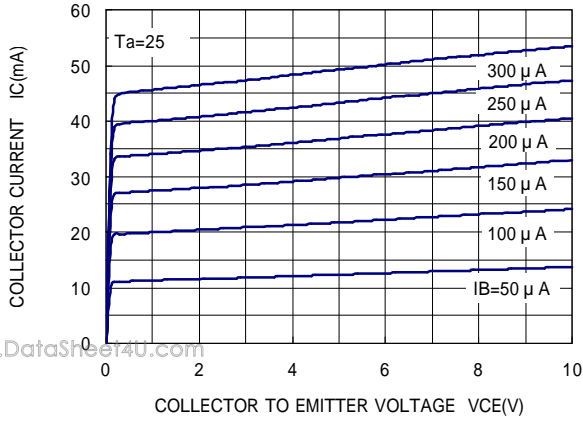
- ① : EMITTER
② : COLLECTOR
③ : BASE

EIJA: -

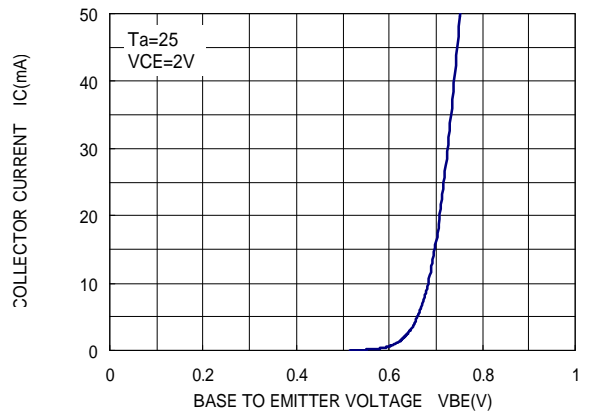
2SC5974A

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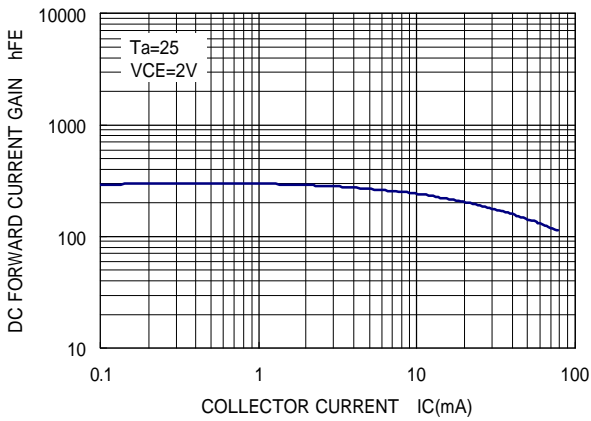
COMMON EMITTER OUTPUT



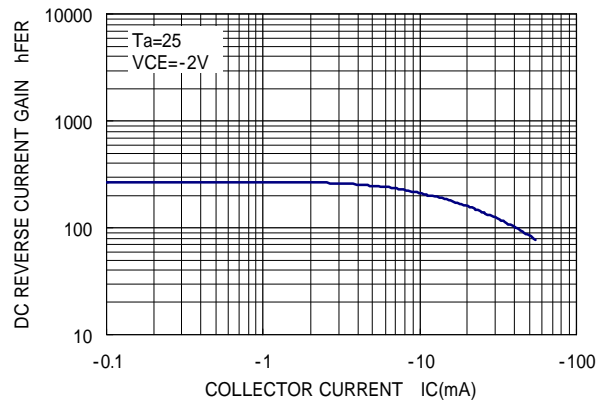
COMMON EMITTER TRANSFER



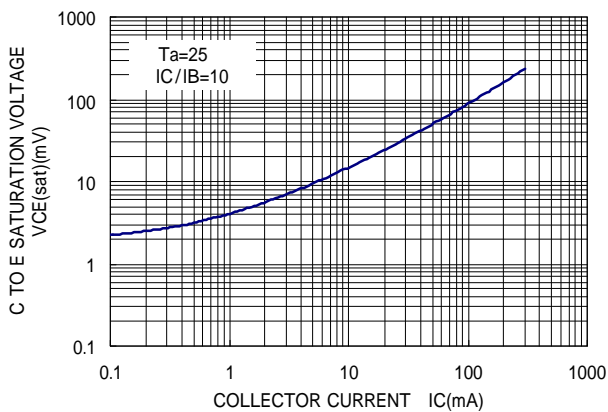
DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT



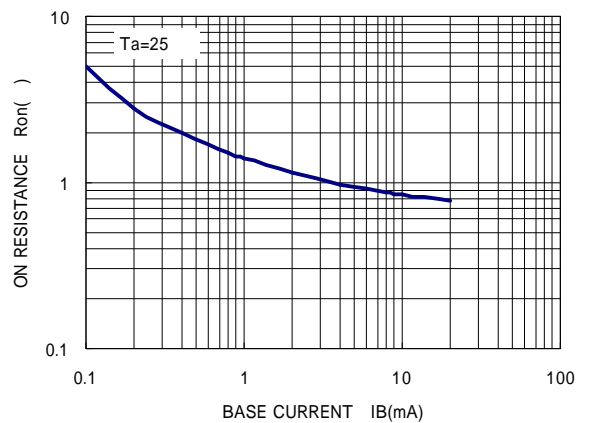
DC REVERSE CURRENT GAIN VS. COLLECTOR CURRENT



COLLECTOR TO EMITTER SATURATION VOLTAGE VS. COLLECTOR CURRENT



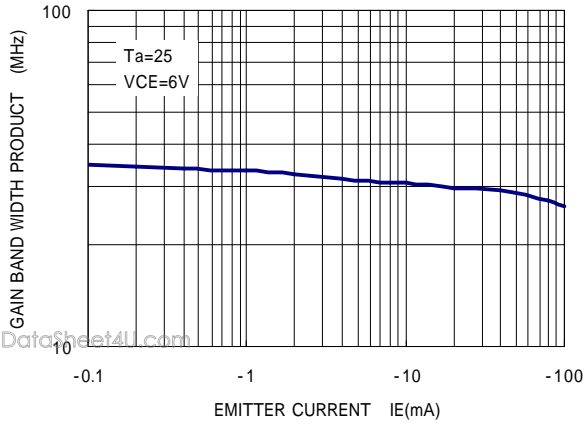
ON RESISTANCE VS. BASE CURRENT



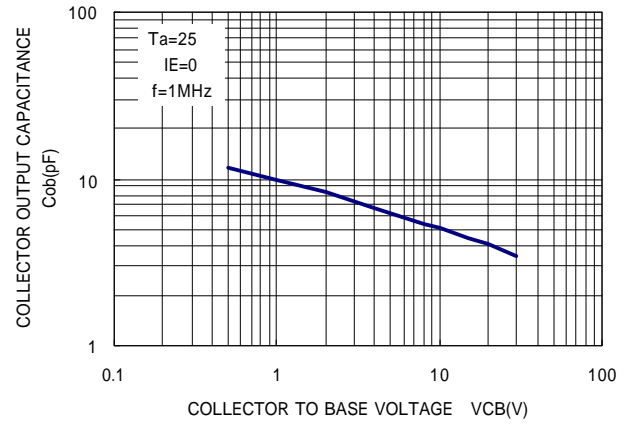
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FOR LOW FREQUENCY AMPLIFY APPLICATION
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GAIN BAND WIDTH PRODUCT VS.
EMITTER CURRENT



COLLECTOR OUTPUT CAPACITANCE
VS. COLLECTOR TO BASE VOLTAGE





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