

**2SC5974**FOR LOW FREQUENCY AMPLIFY APPLICATION  
SILICON NPN EPITAXIAL TYPE

## DESCRIPTION

ISAHAYA 2SC5974 is a mini package resin sealed silicon NPN epitaxial transistor for muting and switching application

## FEATURE

High Emitter to Base voltage  $V_{EBO}=50V$ 

High Reverse hFE

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

Small package for mounting

## APPLICATION

For muting, switching application

MAXIMUM RATINGS ( $T_a=25$  )

Symbol	Parameter	Ratings	Unit
$V_{CBO}$	Collector to Base voltage	50	V
$V_{CEO}$	Collector to Emitter voltage	12	V
$V_{EBO}$	Emitter to Base voltage	50	V
$I_C$	Collector current	200	mA
$P_C$	Collector dissipation	450	mW
$T_j$	Junction temperature	+125	
$T_{stg}$	Storage temprature	-55 ~ +125	

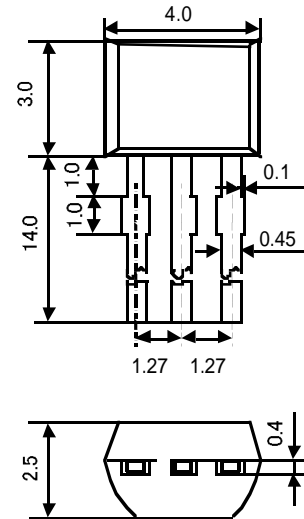
ELECTRICAL CHARACTERISTICS ( $T_a=25$  )

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
$I_{CBO}$	Collector cut off current	$V_{CB}=50V, I_E=0mA$			0.1	$\mu A$
$I_{EBO}$	Emitter cut off current	$V_{EB}=50V, I_C=0mA$			0.1	$\mu A$
hFE	DC forward current gain	$V_{CE}=2V, I_C=4mA$	200		1200	
$V_{CE(sat)}$	C to E saturation voltage	$I_C=30mA, I_E=3mA$		30		mV
fT	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
hFE	200 to 700	350 to 1200

## OUTLINE DRAWING

Unit : mm



## TERMINAL CONNECTOR

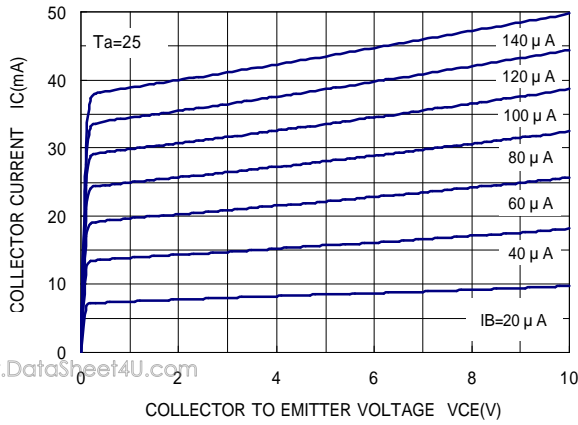
- ① : EMITTER  
② : COLLECTOR  
③ : BASE

EIJA: -

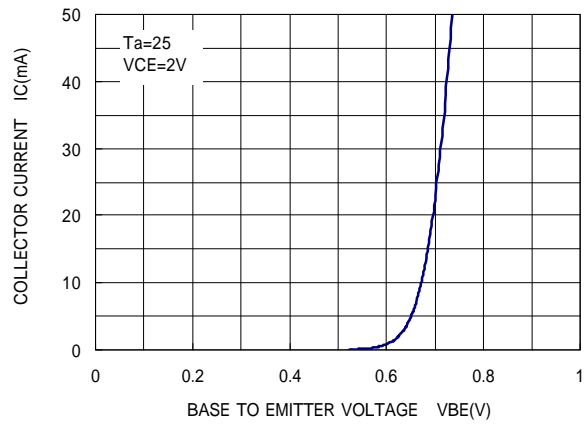
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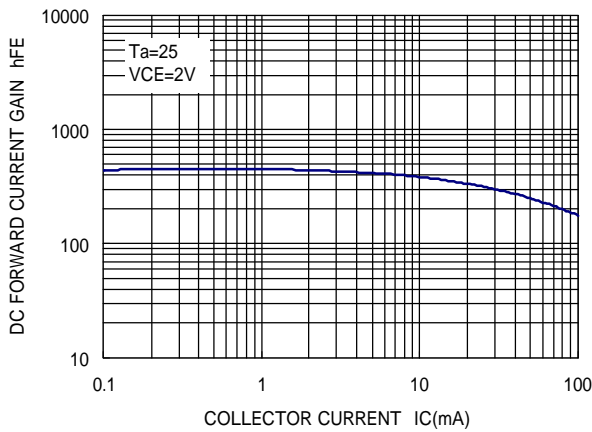
COMMON EMITTER OUTPUT



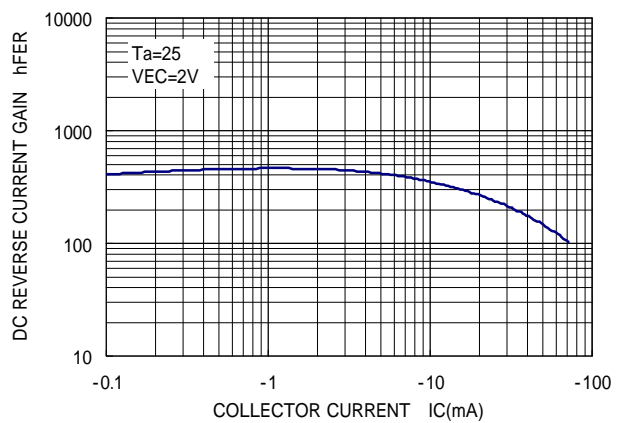
COMMON EMITTER TRANSFER



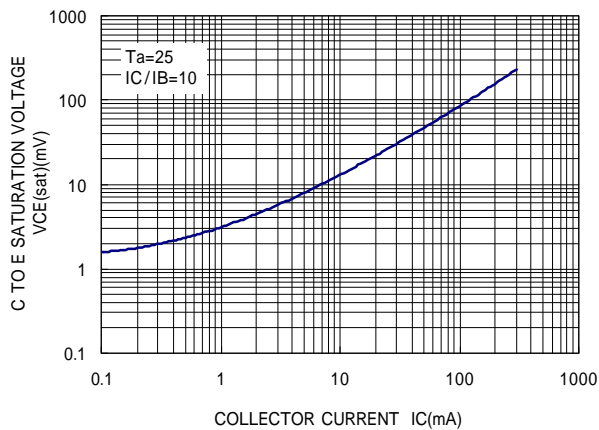
DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT



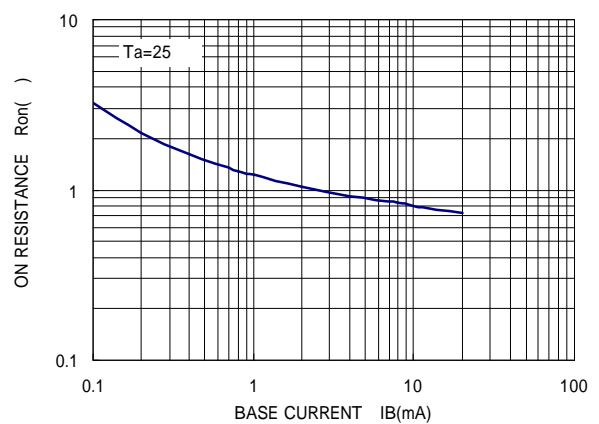
DC REVERSE CURRENT GAIN VS. COLLECTOR CURRENT



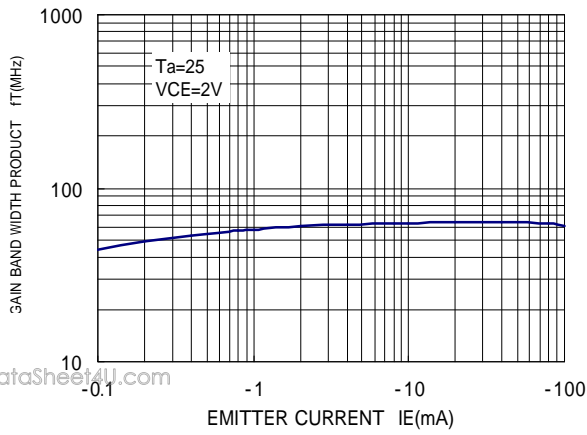
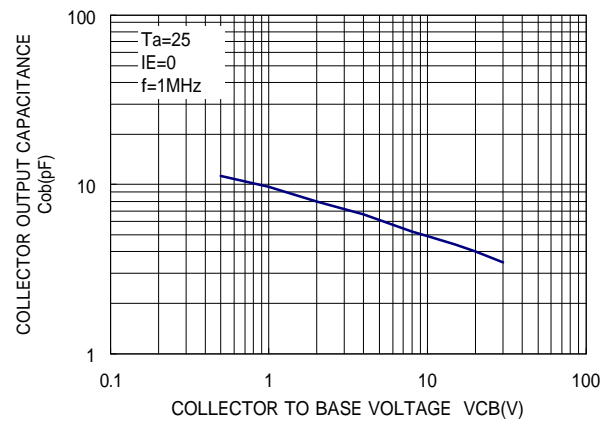
COLLECTOR TO EMITTER SATURATION VOLTAGE VS. COLLECTOR CURRENT



ON RESISTANCE VS. BASE CURRENT



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FOR LOW FREQUENCY AMPLIFY APPLICATION  
SILICON NPN EPITAXIAL TYPEGAIN BAND WIDTH PRODUCT VS.  
EMITTER CURRENTCOLLECTOR OUTPUT CAPACITANCE  
VS. COLLECTOR TO BASE VOLTAGE



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