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

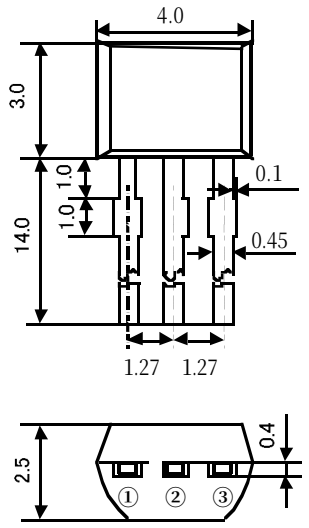
- High Emitter to Base voltage VEBO=50V
- High Reverse hFE
- Low ON RESISTANCE. RON=1Ω
- Small packege for mounting

APPLICATION

For muting, switching application

OUTLINE DRAWING

Unit : mm



TERMINAL CONNECTOR

① : EMITTER
② : COLLECTOR
③ : BASE

EIJA: -

MAXIMUM RATINGS (Ta=25°C)

Symbol	Parameter	Ratings	Unit
VCBO	Collector to Base voltage	50	V
VCEO	Collector to Emitter voltage	12	V
VEBO	Emitter to Base voltage	50	V
I C	Collector current	200	mA
PC	Collector dissipation	450	mW
Tj	Junction temperature	+125	°C
Tstg	Storage temprature	-55 ～ +125	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C)

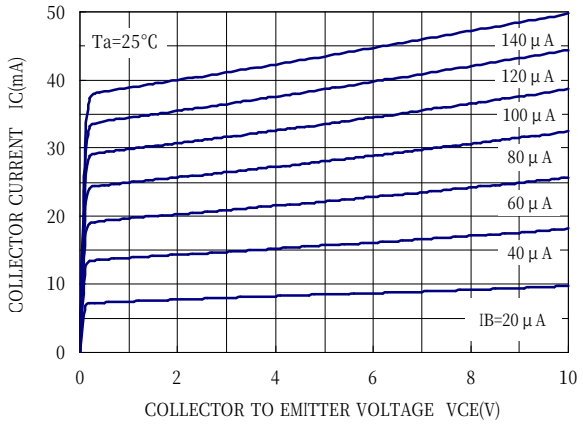
Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
I CBO	Collector cut off current	VCB=50V, I E=0mA			0.1	μA
I EBO	Emitter cut off current	VEB=50V, IC=0mA			0.1	μA
hFE	DC forward current gain	VCE=2V, I C=4mA	200		1200	
VCE(sat)	C to E saturation voltage	I C=30mA, I B=3mA		30		mV
fT	Gain bandwidth product	VCE=6V, I C=4mA		30		MHz
Cob	Collector output capacitance	VCB=10V, I E=0mA, f=1MHz		5.0		pF

Item	A	B
hFE	200 to 700	350 to 1200

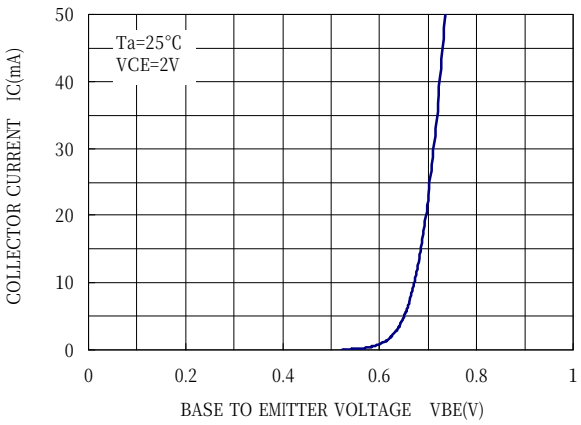
2SC5974

FOR LOW FREQUENCY AMPLIFY APPLICATION
SILICON NPN EPITAXIAL TYPE

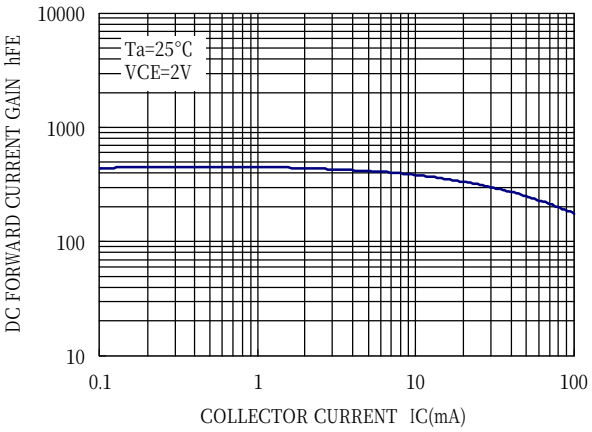
COMMON EMITTER OUTPUT



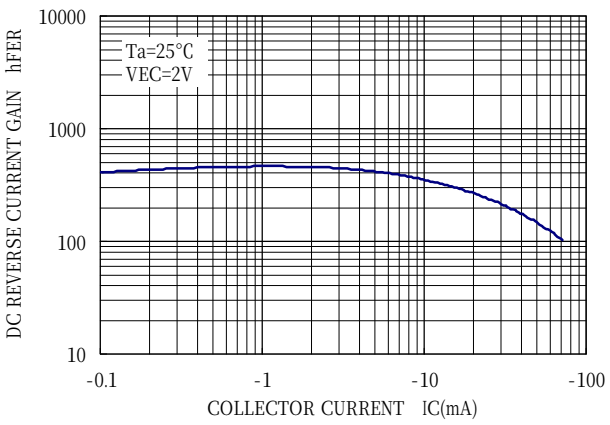
COMMON EMITTER TRANSFER



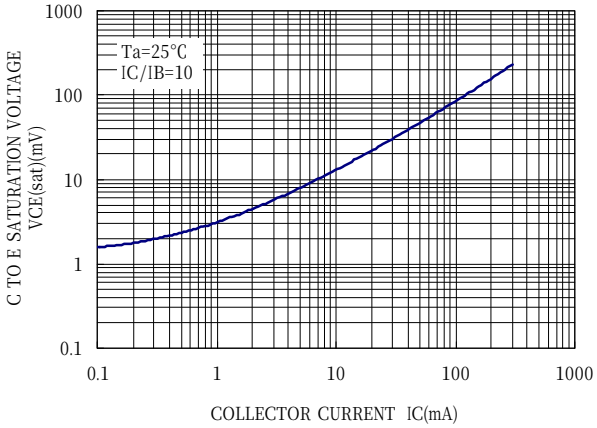
DC FORWARD CURRENT GAIN
VS. COLLECTOR CURRENT



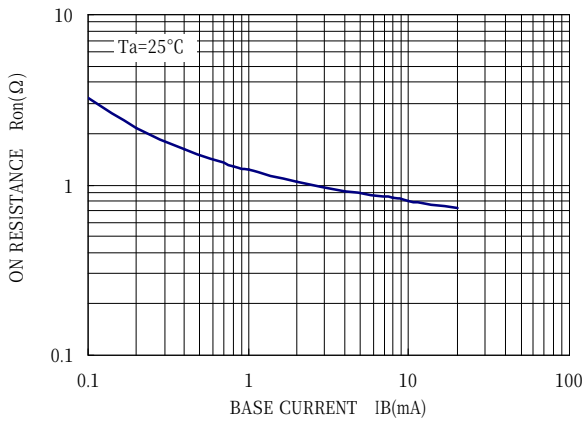
DC REVERSE CURRENT GAIN
VS. COLLECTOR CURRENT



COLLECTOR TO EMITTER SATURATION VOLTAGE
VS.COLLECTOR CURRENT



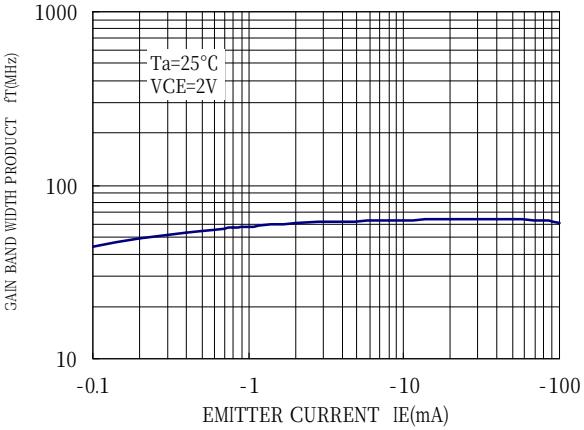
ON RESISTANCE VS. BASE CURRENT



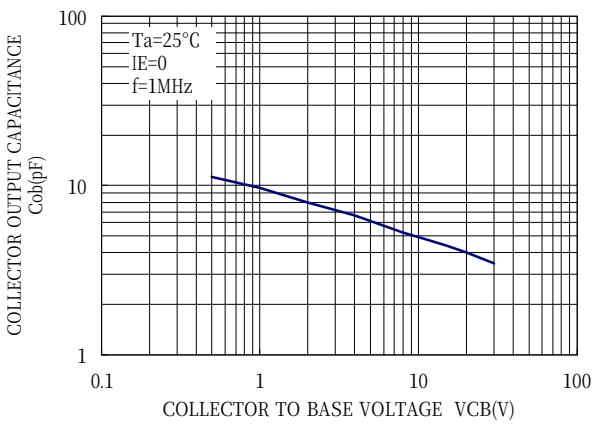
2SC5974

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

Marketing division, Marketing planning department

6-41 Tsukuba, Isahaya, Nagasaki, 854-0065 Japan

Keep safety first in your circuit designs!

·ISAHAYA Electronics Corporation puts the maximum effort into making semiconductor products better and more reliable, but there is always the possibility that trouble may occur with them. Trouble with semiconductors may lead to personal injury, fire or property damage. Remember to give due consideration to safety when making your circuit designs, with appropriate measures such as (1) placement of substitutive, auxiliary, (2) use of non-farmable material or (3) prevention against any malfunction or mishap.

Notes regarding these materials

·These materials are intended as a reference to our customers in the selection of the ISAHAYA products best suited to the customer's application; they don't convey any license under any intellectual property rights, or any other rights, belonging ISAHAYA or third party.

·ISAHAYA Electronics Corporation assumes no responsibility for any damage, or infringement of any third party's rights, originating in the use of any product data, diagrams, charts or circuit application examples contained in these materials.

·All information contained in these materials, including product data, diagrams and charts, represent information on products at the time of publication of these materials, and are subject to change by ISAHAYA Electronics Corporation without notice due to product improvements or other reasons. It is therefore recommended that customers contact ISAHAYA Electronics Corporation or an authorized ISAHAYA products distributor for the latest product information before purchasing product listed herein.

·ISAHAYA Electronics Corporation products are not designed or manufactured for use in a device or system that is used under circumstances in which human life is potentially at stake. Please contact ISAHAYA electronics corporation or an authorized ISAHAYA products distributor when considering the use of a product contained herein for any specific purposes, such as apparatus or systems for transportation, vehicular, medical, aerospace, nuclear, or undersea repeater use.

·The prior written approval of ISAHAYA Electronics Corporation is necessary to reprint or reproduce in whole or in part these materials.

·If these products or technologies are subject to the Japanese export control restrictions, they must be exported under a license from the Japanese government and cannot be imported into a country other than the approved destination. Any diversion or re-export contrary to the export control laws and regulations of Japan and/or the country of destination is prohibited.

·Please contact ISAHAYA Electronics Corporation or authorized ISAHAYA products distributor for further details on these materials or the products contained therein.

Jan.2003