〈SMALL-SIGNAL TRANSISTOR〉

2SC5477

FOR HIGH FREQUENCY AMPLIFY APPLICATION
SILICON NPN EPITAXIAL TYPE

DESCRIPTION

2SC5477 is a super mini package resin sealed silicon NPN epitaxial type transistor. It is designed for high frequency amplify application.

FEATURE

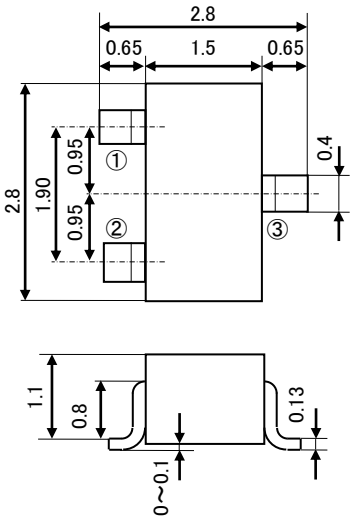
- Super mini package for easy mounting.
- High gain band width product

APPLICATION

Small type machine high frequency amplify application

OUTLINE DRAWING

Unit:mm



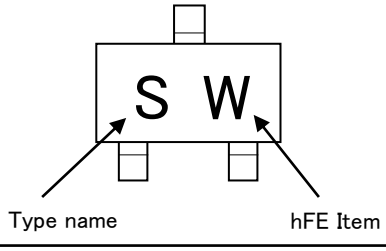
TERMINAL CONNECTER
①:BASE
②:EMITTER
③:COLLECTOR

JEITA:SC-59
JEDEC:Similar to TO-236

MAXIMUM RATINGS(Ta=25℃)

Parameter	Symbol	Ratings	Unit
Collector to Base voltage	V_{CBO}	30	V
Emitter to Base voltage	V_{EBO}	4	V
Collector to Emitter voltage	V_{CEO}	20	V
Collector current	Ic	50	mA
Collector dissipation	Pc	150	mW
Junction temperature	T_j	+150	℃
Storage temperature	T_{stg}	−55～+150	℃

MARKING



ELECTRICAL CHARACTERISTICS(Ta=25℃)

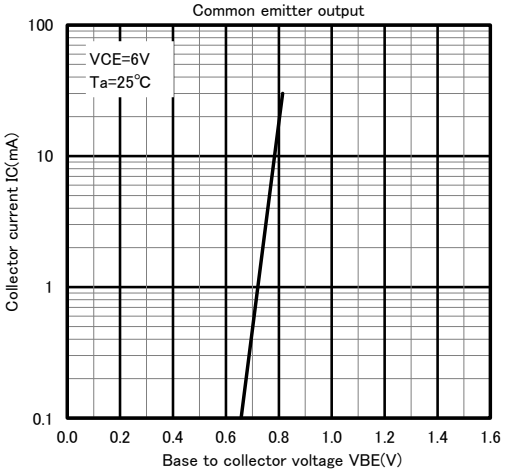
Parameter	Symbol	Test conditions	Limits			Unit
			Min	Typ	Max	
C to B breakdown voltage	$V_{(BR)CBO}$	I_C=50μA, I_E=0	30	−	−	V
E to B breakdown voltage	$V_{(BR)EBO}$	I_E=50μA, I_C=0	4	−	−	V
C to E breakdown voltage	$V_{(BR)CEO}$	I_C=1mA, R_{BE}=∞	20	−	−	V
Collector cut off current	I_{CBO}	V_{CB}=20V, I_E=0	−	−	0.5	μA
Emitter cut off current	I_{EBO}	V_{EB}=3V, I_C=0	−	−	0.5	μA
DC forward current gain	h_{FE}	V_{CE}=10V, I_C=5mA	50	148	−	−
C to E saturation voltage	$V_{CE(sat)}$	I_C=10mA, I_B=1mA	−	0.1	−	V
Gain bandwidth product	f_T	V_{CE}=5V, I_E=−10mA	600	1100	−	MHz
Collector output capacitance	Cob	V_{CB}=6V, I_E=0, f=1MHz	−	1.2	1.5	pF

2SC5477

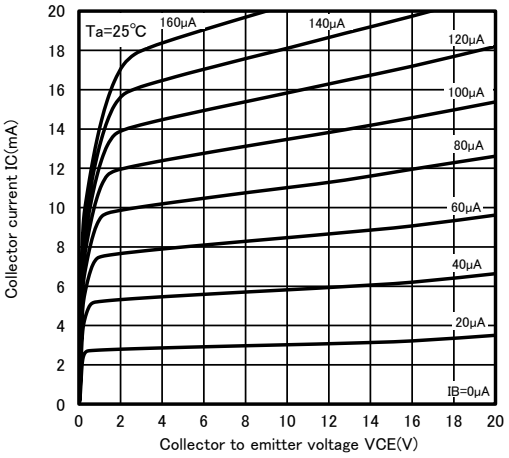
FOR HIGH FREQUENCY AMPLIFY APPLICATION
SILICON NPN EPITAXIAL TYPE

TYPICAL CHARACTERISTICS

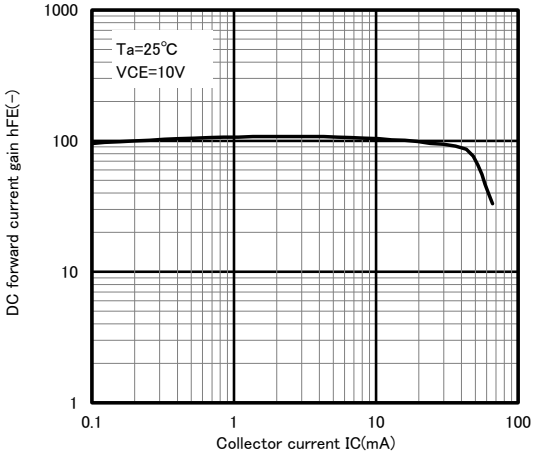
Common emitter output



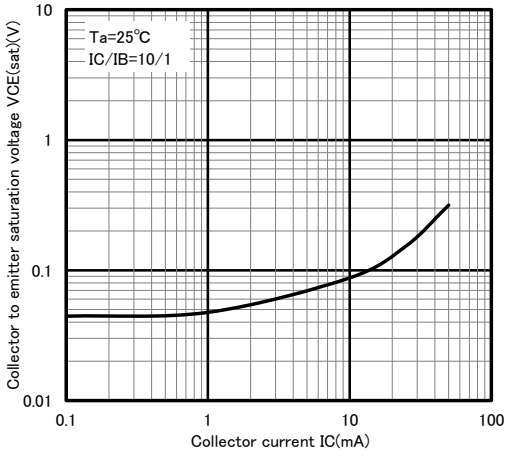
Common emitter transfer



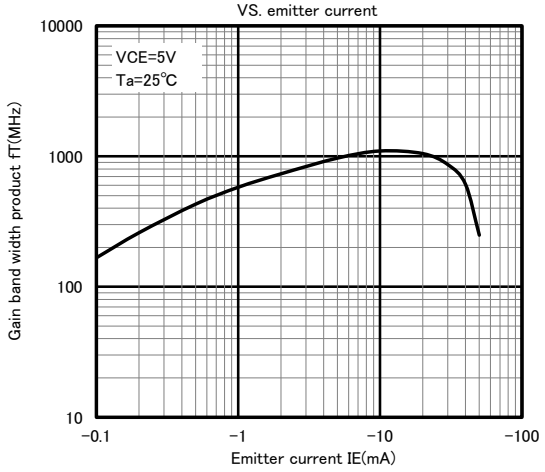
DC forward current gain
VS. collector current



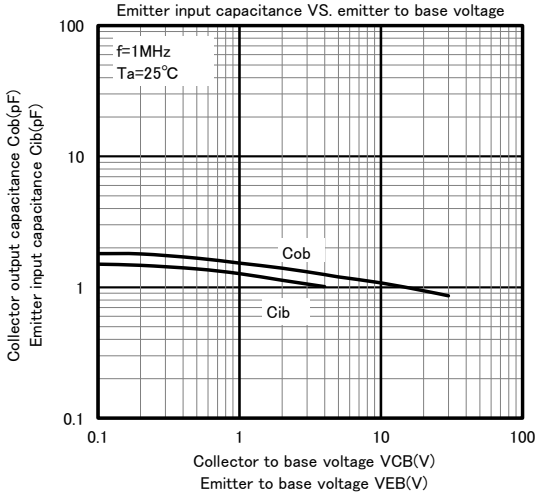
Collector to emitter saturation voltage
VS. collector current



Gain band width product
VS. emitter current

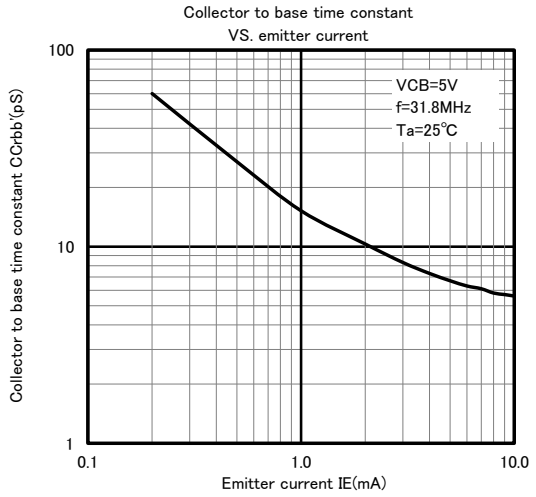


Collector output capacitance VS. collector to base voltage
Emitter input capacitance VS. emitter to base voltage



2SC5477

FOR HIGH FREQUENCY AMPLIFY APPLICATION
SILICON NPN EPITAXIAL TYPE



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.