〈Transistor〉

ISC5804AT2

Low frequency Application
Silicon NPN Epitaxial Type

DESCRIPTION

2SC5804 is a super mini package resin sealed silicon NPN epitaxial transistor,
It is designed for low frequency application.
Since it is a super-thin flat lead type package,a high-density mounting are possible.
Complementary with 2SC3052.

FEATURE

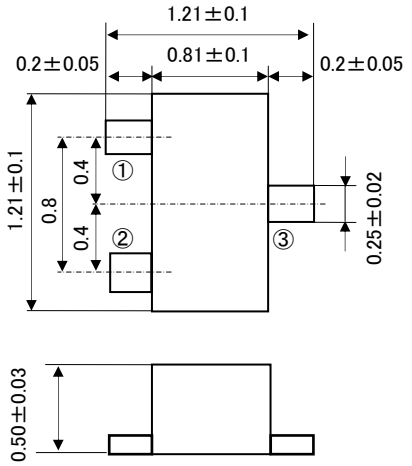
- Super-thin flat lead type package. t=0.45mm
- Excellent linearly of DC forward current gain.
- Low collector to emitter saturation voltage
  VCE(sat)=0.3V max (@Ic=100mA/IB=10mA)

APPLICATION

For hybrid IC,small type machine low frequency voltage amplify application.

OUTLINE DRAWING

Unit:mm

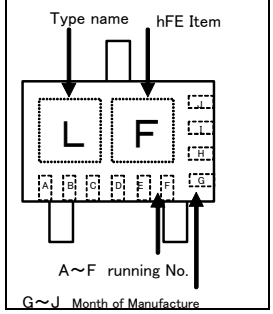


※The dimension tolerance is reference value.

JEITA:

Terminal Connector
①:Base
②:Emitter
③:Collector

Equivalent circuit



MAXIMUM RATING(Ta=25℃)

SYMBOL	PARAMETER	RATING	UNIT
VCBO	Collector to Base voltage	50	V
VEBO	Emitter to Base voltage	6	V
VCEO	Collector to Emitter voltage	50	V
IC	Collector current	150	mA
PC	Collector dissipation(Ta=25℃)	150(*)	mW
Tj	Junction temperature	+125	℃
Tstg	Storage temperature	-55～+125	℃

※package mounted on 9mm×19mm×1mm glass-epoxy substrate.

ELECTRICAL CHARACTERISTICS (Ta=25℃)

SYMBOL	PARAMETER	TEST CONDITION	LIMIT			UNIT
			MIN	TYP	MIN	TYP
Collector to Emitter Breakdown voltage	V(BR)CEO	I_C=100μA, R_{BE}=∞	50	—	—	V
Collector cut off current	ICBO	V_{CB}=50V, I_E=0mA	–	–	0.1	μA
Emitter cut off current	IEBO	V_{EB}=6V, I_C=0mA	–	–	0.1	μA
DC forward current gain	hFE	V_{CE}=6V, I_C=1mA	150	※	800	–
DC forward current gain	hFE	V_{CE}=6V, I_C=0.1mA	90	–	–	–
C to E saturation voltage	VCE(sat)	I_C=100mA, I_B=10mA	–	–	0.3	v
Gain bandwidth product	fT	V_{CE}=6V, I_E=-10mA	–	200	–	MHz
Collector output capacitance	Cob	V_{CB}=6V, I_E=0mA,f=1MHz	–	2.5	–	pF
Noise figure	NF	V_{CE}=6V, I_E=-0.1mA,f=1kHz,RG=2kΩ	–	–	15	dB

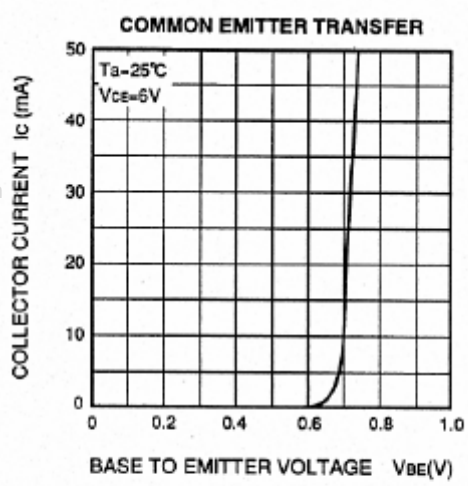
※ It shows hFE classification in below table.

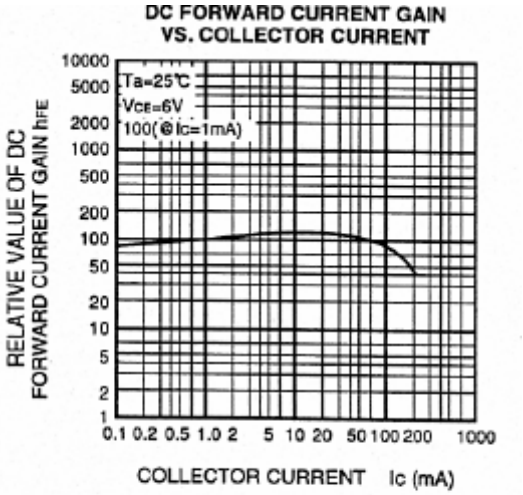
Item	E	F	G
hFE	150～300	250～500	400～800

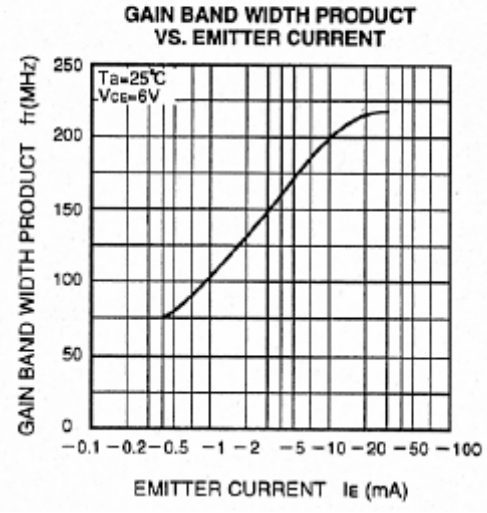
〈Transistor〉

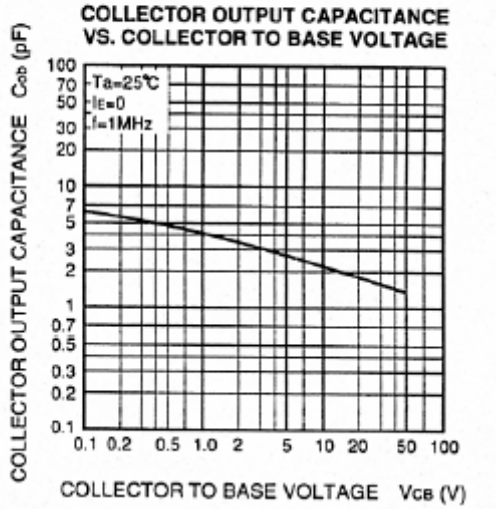
ISC5804AT2

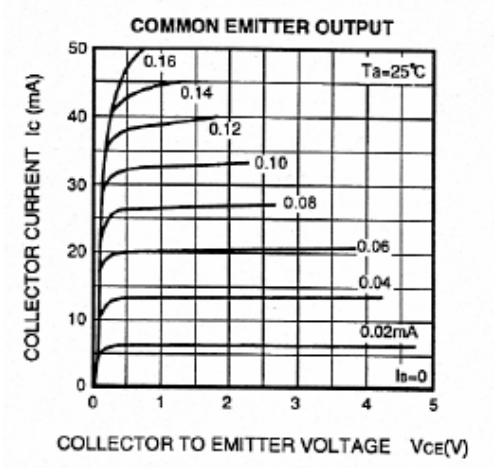
Low frequency Application
Silicon NPN Epitaxial Type

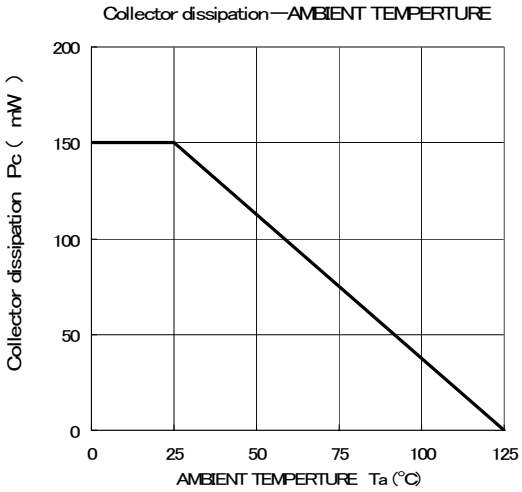












ISAHAYA ELECTRONICS CORPORATION

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.