〈SMALL-SIGNAL TRANSISTOR〉

2SC3440

FOR HIGH CURRENT DRIVE APPLICATION
SILICON NPN EPITAXIAL TYPE

DESCRIPTION

2SC3440 is a super mini silicon NPN epitaxial transistor designed with high collector current, small VCE(sat).

Complementary with 2SA1365.

FEATURE

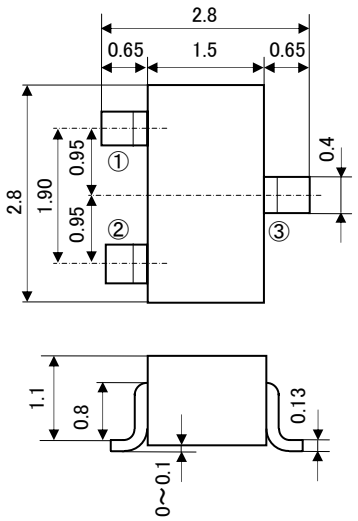
- Low collector to emitter saturation voltage
  VCE(sat)=0.2V typ
- Excellent linearity of DC forward current gain.
- Super mini package for easy mounting
- High collector current ICM=1000mA
- High gain band with product fT=180MHz typ

APPLICATION

Small type motor drive, relay drive, power supply

OUTLINE DRAWING

Unit:mm



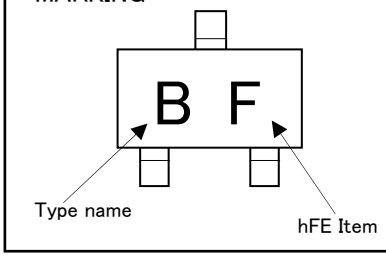
TERMINAL CONNECTER
①:BASE
②:EMITTER
③:COLLECTOR

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

MAXIMUM RATINGS(Ta=25℃)

Parameter	Symbol	Ratings	Unit
Collector to Base voltage	V_{CBO}	25	V
Emitter to Base voltage	V_{EBO}	4	V
Collector to Emitter voltage	V_{CEO}	20	V
Collector current	I_C	700	mA
Peak collector current	I_{CM}	1000	mA
Collector dissipation	P_c	200	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=10μA , I_E=0mA	25	−	−	V
E to B breakdown voltage	$V(BR)_{EBO}$	I_E=10μA , I_C=0mA	4	−	−	V
C to E breakdown voltage	$V(BR)_{CEO}$	I_C=100μA , R_{BE}=∞	20	−	−	V
Collector cut off current	ICBO	V_{CB}=25V, I_E=0mA	−	−	1	μA
Emitter cut off current	IEBO	V_{EB}=2V, I_C=0mA	−	—	1	μA
DC forward current gain ＊	hFE	V_{CE}=4V, I_C=100mA	150	—	800	—
C to E Saturation Voltage	VCE(sat)	I_C=500mA , I_B=25mA	−	0.2	0.5	V
Gain bandwidth product	fT	V_{CE}=6V, I_E=−10mA	−	180	−	MHz

※: It shows hFE classification at right table.

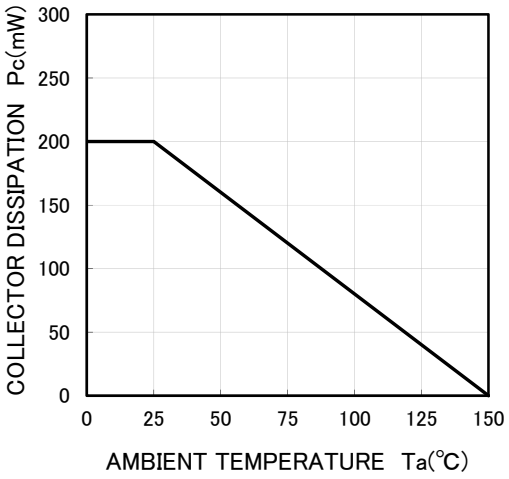
Item	E	F	G
hFE	150～300	250～500	400～800

2SC3440

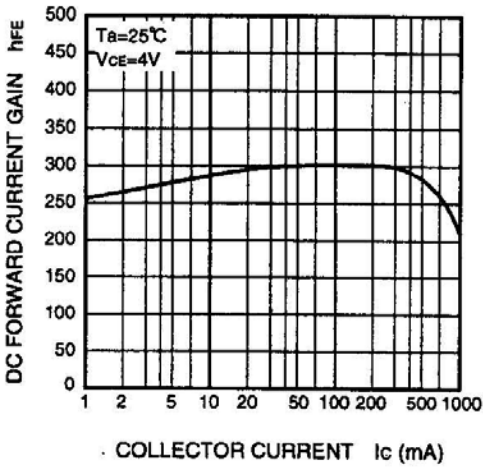
FOR HIGH CURRENT DRIVE APPLICATION
SILICON NPN EPITAXIAL TYPE

TYPACAL CHARACTERISTICS

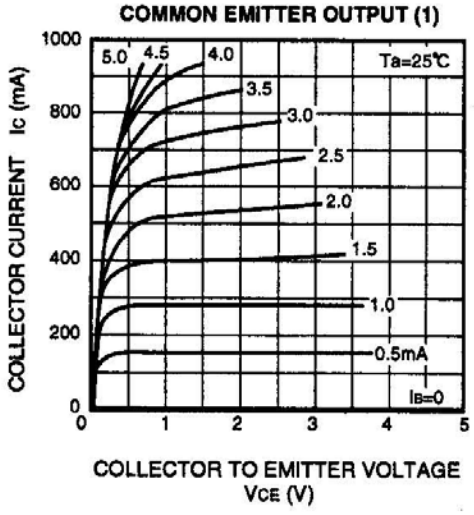
COLLECTOR DISSIPATION
VS AMBIENT TEMPERATURE



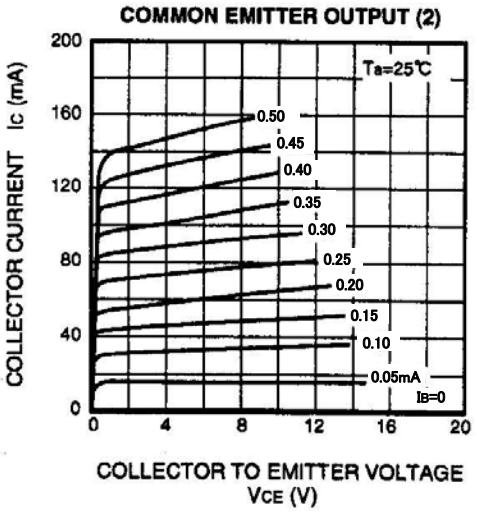
DC FORWARD CURRENT GAIN VS.
COLLECTOR CURRENT



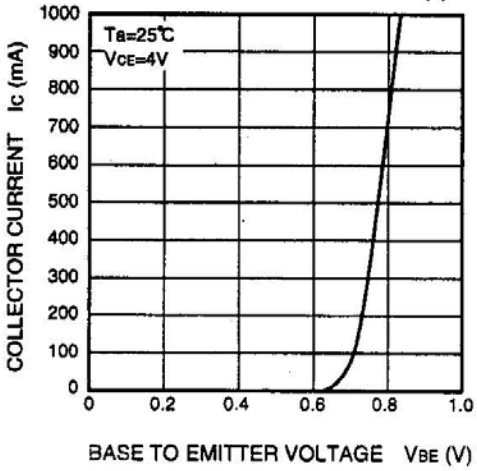
COMMON EMITTER OUTPUT (1)



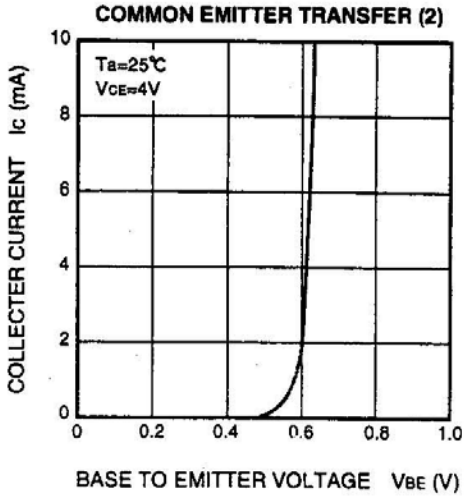
COMMON EMITTER OUTPUT (2)



COMMON EMITTER TRANSFER (1)



COMMON EMITTER TRANSFER (2)



ISAHAYA ELECTRONICS CORPORATION

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.

Mar.2016