

FOR SMALL TYPE MOTOR, PLUNGER DRIVE APPLICATION  
SILICON PNP EPITAXIAL TYPE

**DESCRIPTION**

2SA1369 is a silicon PNP epitaxial type transistor designed with high collector dissipation, high collector current, high hFE.

Complementary with 2SC3439.

**FEATURE**

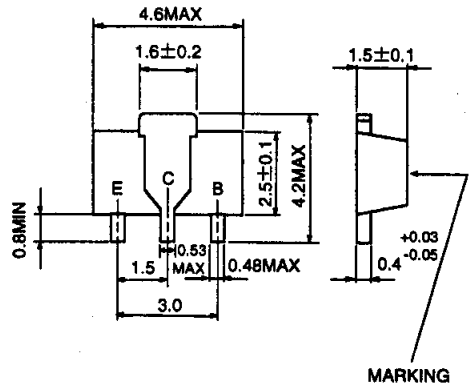
- High hFE hFE=400 to 800
- High collector current (ICM=-3A, IC=-1.5A)
- Small VCEO(sat) VCEO(sat)=-0.25V typ (@IC=-1A, IB=-20mA)
- High collector dissipation Pc=500mW
- Small package for mounting

**APPLICATION**

Small type motor drive for VCR, tape desk, player, drive for relay.

**OUTLINE DRAWING**

Unit:mm



**TERMINAL CONNECTOR**

E : EMITTER  
C : COLLECTOR  
B : BASE

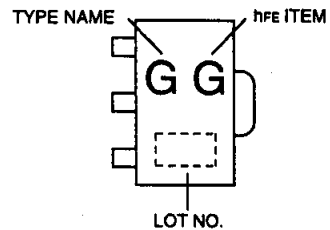
EIAJ : SC-62  
JEDEC : -

Note)  
The dimension without tolerance represent central value.

**MAXIMUM RATINGS (Ta=25°C)**

Symbol	Parameter	Ratings	Unit
Vcbo	Collector to Base voltage	-30	V
Vebo	Emitter to Base voltage	-6	V
Vceo	Collector to Emitter voltage	-20	V
ICM	Peak Collector current	-3	A
IC	Collector current	-1.5	A
Pc	Collector dissipation(Ta=25°C)	500	mW
Tj	Junction temperature	+150	°C
Tstg	Storage temperature	-55 to +150	°C

**MARKING**



**ELECTRICAL CHARACTERISTICS (Ta=25°C)**

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
V(BR)CBO	C to B break down voltage	IC=-10 μA, IE=0	-30			V
V(BR)EBO	E to B break down voltage	IE=-10 μA, IC=0	-6			V
V(BR)CEO	C to E break down voltage	IC=-1mA, RBE=∞	-20			V
ICBO	Collector cut off current	VCE=-20V, IE=0			-0.1	μA
IEBO	Emitter cut off current	VEB=-2V, IC=0			-0.1	μA
hFE *	DC forward current gain	VCE=-6V, IC=-500mA	400		1200	—
VCE(sat)	C to E saturation voltage	IC=-1A, IB=-20mA		-0.25	-0.5	V
fr	Gain band width product	VCE=-10V, IE=10mA		90		MHz
Cob	Collector output capacitance	VCB=-10V, IE=0, f=1MHz		37		pF

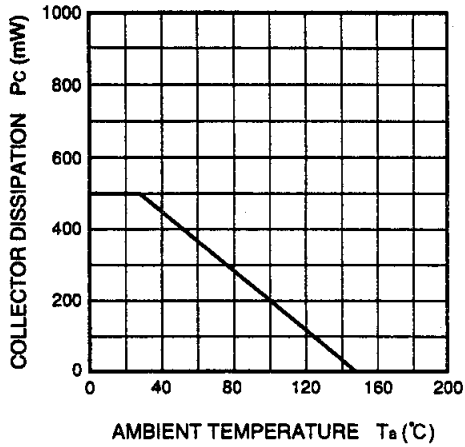
\* : It shows hFE classification in right table.

Marking	GG	GH
hFE	400 to 800	600 to 1200

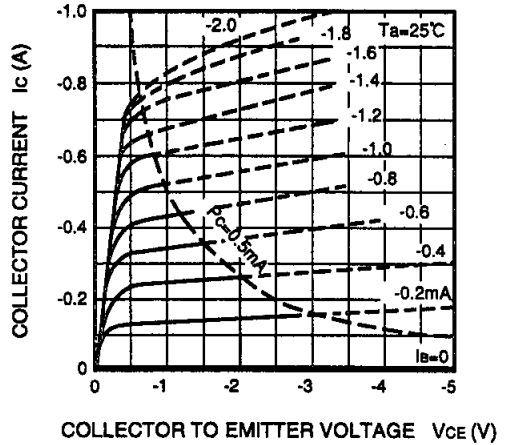
FOR SMALL TYPE MOTOR, PLUNGER DRIVE APPLICATION  
SILICON PNP EPITAXIAL TYPE

TYPICAL CHARACTERISTICS

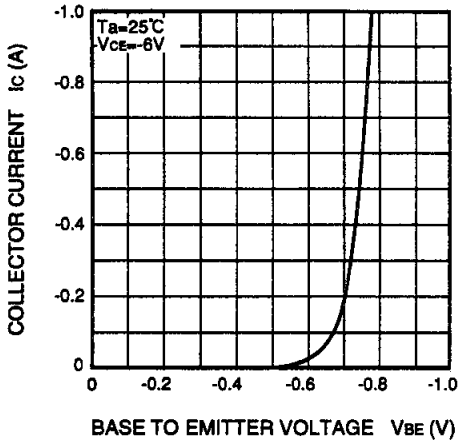
COLLECTOR DISSIPATION VS.  
AMBIENT TEMPERATURE



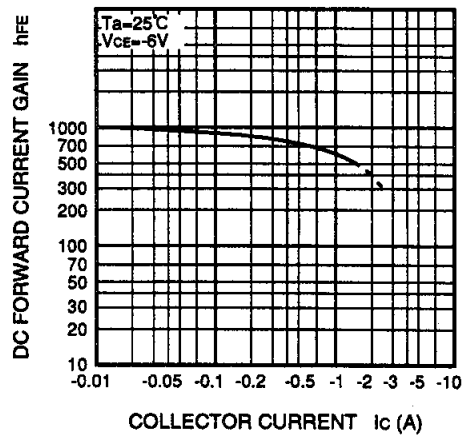
COMMON EMITTER OUTPUT



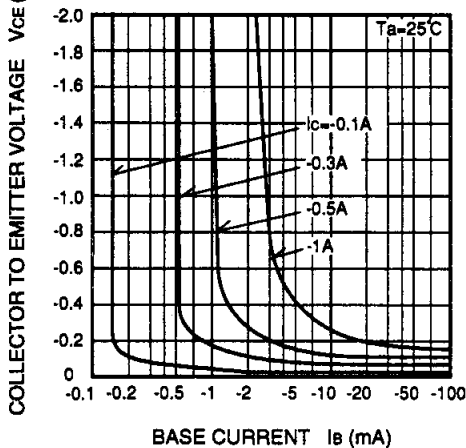
COMMON EMITTER TRANSFER



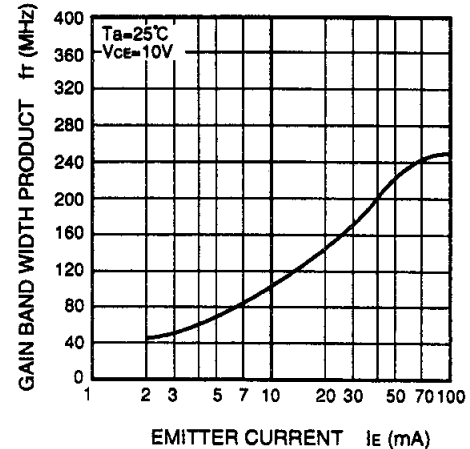
DC FORWARD CURRENT GAIN  
VS. COLLECTOR CURRENT



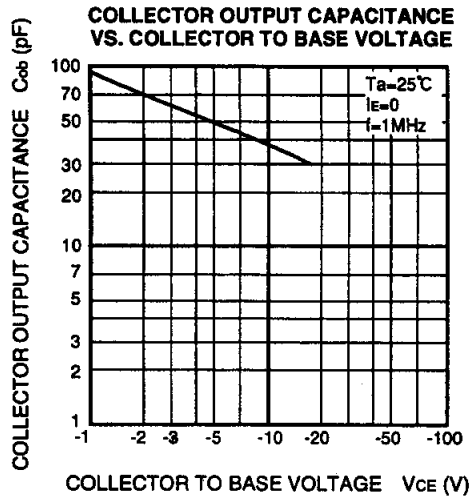
COLLECTOR TO EMITTER SATURATION  
VOLTAGE VS. BASE CURRENT



GAIN BAND WIDTH PRODUCT  
VS. EMITTER CURRENT



FOR SMALL TYPE MOTOR, PLUNGER DRIVE APPLICATION  
SILICON PNP EPITAXIAL TYPE



---

The logo for IDC ISAHAYA ELECTRONICS CORPORATION. It features the letters 'IDC' in a stylized blue font with a red triangle above the 'I'. To the right of 'IDC', the words 'ISAHAYA ELECTRONICS CORPORATION' are written in a black, italicized, serif font.

<http://www.idc-com.co.jp>  
6-41, TSUKUBA, ISAHAYA, NAGASAKI, 854-0065, JAPAN

Keep safety 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 consideration to safety when making your circuit designs, with appropriate measures such as (i) placement of substitutive, auxiliary circuits, (ii) use of non-flammable material or (iii) prevention against any malfunction or mishap.

Notes regarding these materials

·These materials are intended as reference to assist out customers in the selection of the Isahaya semiconductor product best suited to the customer's application, they do not convey any license under any intellectual property rights, or any other rights, belonging to Isahaya Electronics Corporation or a third party.  
·Isahaya Electronics Corporation assumes no responsibility for any damage, or infringement of any third-party rights, originating in the use of any product data, diagrams, charts or circuit application examples contained in the 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 authorized Isahaya Semiconductor product distributor for the latest product information before purchasing a product listed herein.  
·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 reexport contrary to the export control laws and regulations of Japan and/or the country of destination is prohibited.  
·Please contact Isahaya Electronics Corporation or an authorized Isahaya Semiconductor product distributor for further details on these materials or the products contained therein.

---