

**DESCRIPTION**

2SC3439 is a silicon NPN epitaxial type transistor designed with high collector dissipation, high collector current, high hFE.

Complementary with 2SA1369.

**FEATURE**

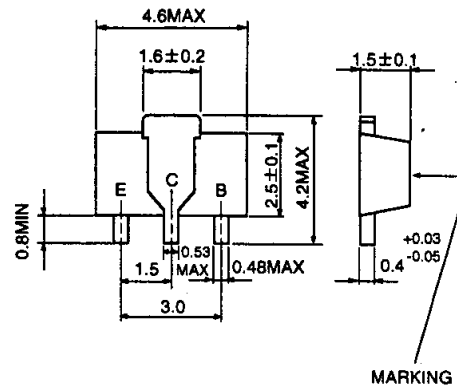
- High hFE hFE=400 to 1800
- High collector current (ICM=3A, IC=1.5A)
- Low VCE(sat) VCE(sat)=0.2V typ (@ IC=1A, IB=20mA)
- High collector dissipation PC=500mW
- Small package for mounting

**APPLICATION**

VCR, tape deck, small type motor drive for player, drive for relay, power supply for ripple filter.

**OUTLINE DRAWING**

Unit:mm



**TERMINAL CONNECTOR**

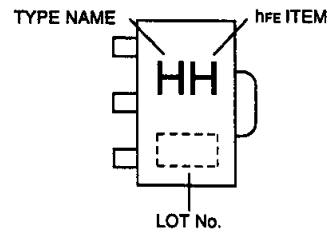
E : EMITTER  
C : COLLECTOR EIAJ : SC-62  
B : BASE JEDEC : -

Note)  
The dimension without tolerance represent central value.

**MAXIMUM RATINGS (Ta=25°C)**

Symbol	Parameter	Ratings	Unit
V <sub>CB0</sub>	Collector to Base voltage	30	V
V <sub>EB0</sub>	Emitter to Base voltage	6	V
V <sub>CE0</sub>	Collector to Emitter voltage	25	V
I <sub>CM</sub>	Peak collector current	3	A
I <sub>C</sub>	Collector current	1.5	A
P <sub>C</sub>	Collector dissipation (Ta=25°C)	500	mW
T <sub>J</sub>	Junction temperature	+150	°C
T <sub>stg</sub>	Storage temperature	-55 to +150	°C

**MARKING**



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

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
V <sub>(BR)CBO</sub>	C to B break down voltage	I <sub>C</sub> =10 μA, I <sub>E</sub> =0	30			V
V <sub>(BR)EBO</sub>	E to B break down voltage	I <sub>E</sub> =10 μA, I <sub>C</sub> =0	6			V
V <sub>(BR)CEO</sub>	C to E break down voltage	I <sub>C</sub> =1mA, R <sub>BE</sub> =∞	25			V
I <sub>CB0</sub>	Collector cut off current	V <sub>CB</sub> =20V, I <sub>E</sub> =0			0.1	μA
I <sub>EB0</sub>	Emitter cut off current	V <sub>EB</sub> =2V, I <sub>C</sub> =0			0.1	μA
hFE *	DC forward current gain	V <sub>CE</sub> =6V, I <sub>C</sub> =500mA	400		1800	—
V <sub>CE(sat)</sub>	C to E saturation voltage	I <sub>C</sub> =1A, I <sub>B</sub> =20mA		0.2	0.5	V
f <sub>T</sub>	Gain band width product	V <sub>CE</sub> =10V, I <sub>E</sub> =-10mA		130		MHz
C <sub>ob</sub>	Collector output capacitance	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1MHz		17		pF

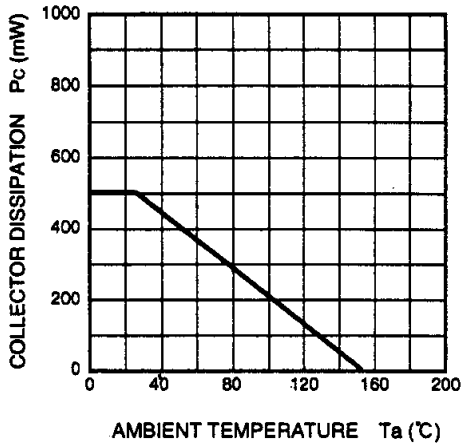
\* : It shows hFE classification in right table.

Marking	HG	HH	HJ
hFE	400 to 800	600 to 1200	900 to 1800

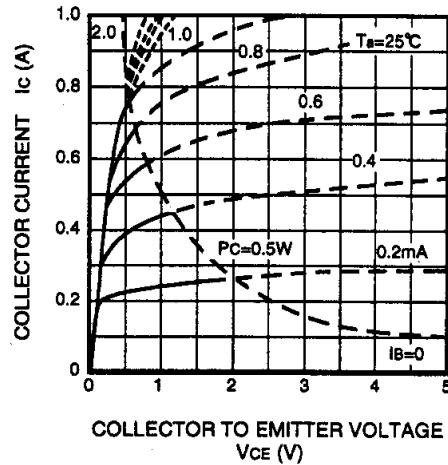
FOR SMALL TYPE MOTOR PLUNGER DRIVE APPLICATION  
SILICON NPN EPITAXIAL TYPE

TYPICAL CHARACTERISTICS

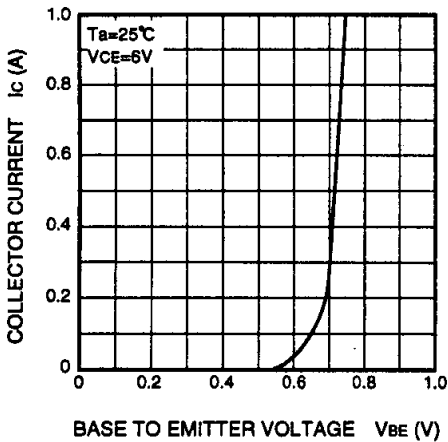
COLLECTOR DISSIPATION VS.  
AMBIENT TEMPERATURE



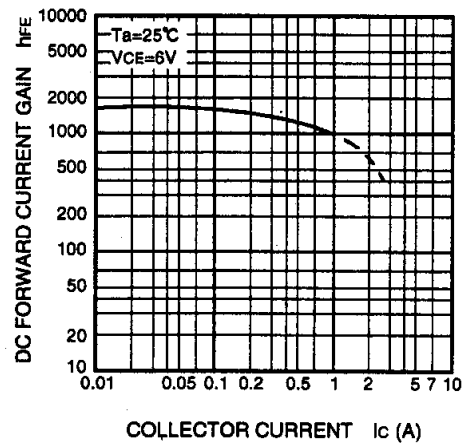
COMMON EMITTER OUTPUT



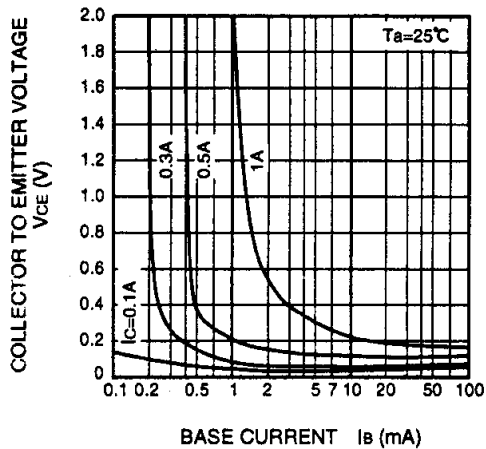
COMMON EMITTER TRANSFER



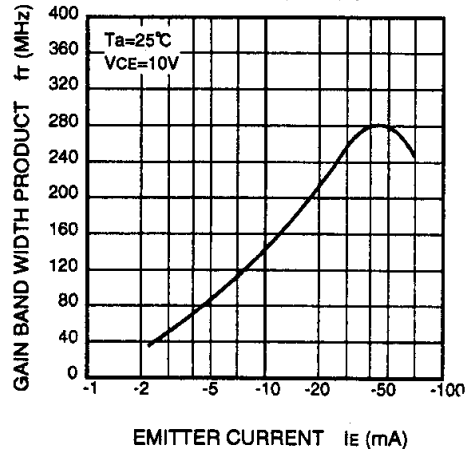
DC FORWARD CURRENT GAIN  
VS. COLLECTOR CURRENT



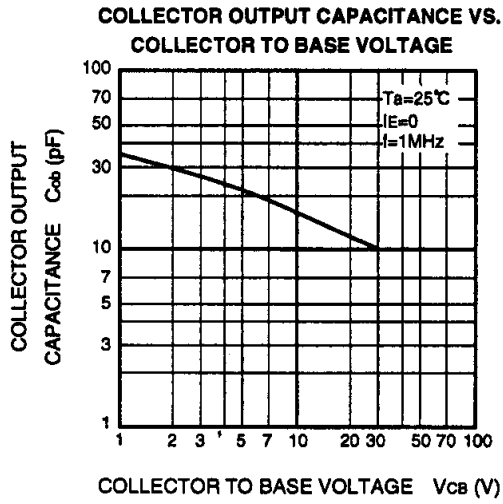
COLLECTOR TO EMITTER SATURATION  
VOLTAGE VS. BASE CURRENT



GAIN BAND WIDTH PRODUCT VS.  
EMITTER CURRENT



FOR SMALL TYPE MOTOR PLUNGER DRIVE APPLICATION  
SILICON NPN EPITAXIAL TYPE



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