

〈SMALL-SIGNAL TRANSISTOR〉

2SC3440

FOR HIGH CURRENT DRIVE APPLICATION
SILICON NPN EPITAXIAL TYPE

DESCRIPTION

2SC3440 is a super mini silicon NPN epitaxial type transistor designed with high collector current, small $V_{CE(sat)}$.
Complementary with 2SA1365.

FEATURE

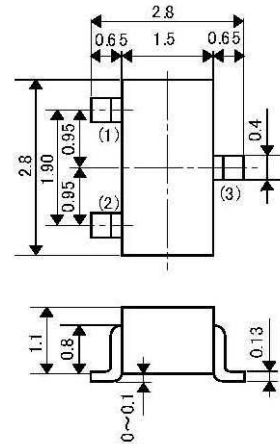
- Low collector to emitter saturation voltage
 $V_{CE(sat)}=0.2V$ typ
- Excellent linearity of DC forward current gain
- Super mini package for easy mounting
- High collector current $I_{CM}=1A$
- High gain band width product $f_T=180MHz$ typ

APPLICATION

Small type motor drive, relay drive, power supply.

OUTLINE DRAWING

Unit:mm



TERMINAL CONNECTOR

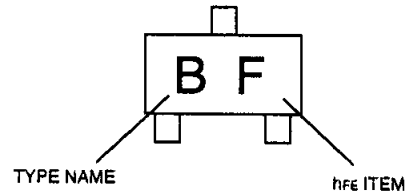
- ① : BASE
 - ② : EMITTER
 - ③ : COLLECTOR
- EIAJ : SC-59
JEDEC : TO-236 resemblance

Note)
The dimension without tolerance represent central value.

MAXIMUM RATINGS ($T_a=25^\circ C$)

Symbol	Parameter	Ratings	Unit
V_{CBO}	Collector to Base voltage	25	V
V_{EBO}	Emitter to Base voltage	4	V
V_{CEO}	Collector to Emitter voltage	20	V
I_{CM}	Peak collector current	1	A
I_C	Collector current	700	mA
P_C	Collector dissipation($T_a=25^\circ C$)	150	mW
T_j	Junction temperature	+125	$^\circ C$
T_{sig}	Storage temperature	-55 to +125	$^\circ C$

MARKING



ELECTRICAL CHARACTERISTICS ($T_a=25^\circ C$)

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
$V_{(BR)CBO}$	C to B break down voltage	$I_C=10 \mu A, I_E=0$	25			V
$V_{(BR)EBO}$	E to B break down voltage	$I_E=10 \mu A, I_C=0$	4			V
$V_{(BR)CEO}$	C to E break down voltage	$I_C=100 \mu A, R_{BE}=\infty$	20			V
I_{CBO}	Collector cut off current	$V_{CB}=25V, I_E=0$			1	μA
I_{EBO}	Emitter cut off current	$V_{EB}=2V, I_C=0$			1	μA
$h_{FE} *$	DC forward current gain	$V_{CE}=4V, I_C=100mA$	150		800	—
$V_{CE(sat)}$	C to E saturation voltage	$I_C=500mA, I_B=25mA$		0.2	0.5	V
f_T	Gain band width product	$V_{CE}=6V, I_E=-10mA$		180		MHz

* : It shows hFE classification in right table.

Marking	BE	BF	BG
hFE	150 to 300	250 to 500	400 to 800

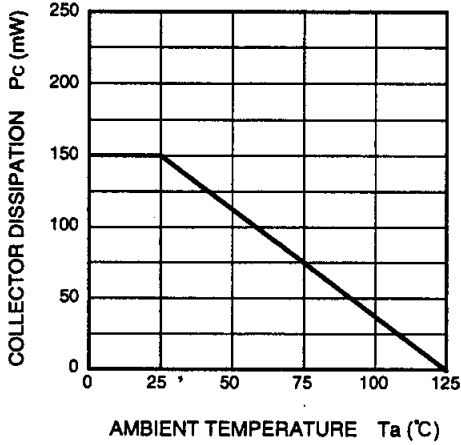
< SMALL-SIGNAL TRANSISTOR >

2SC3440

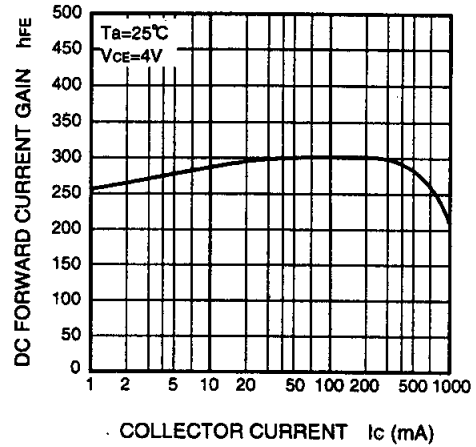
FOR HIGH CURRENT DRIVE APPLICATION
SILICON NPN EPITAXIAL TYPE

TYPICAL CHARACTERISTICS

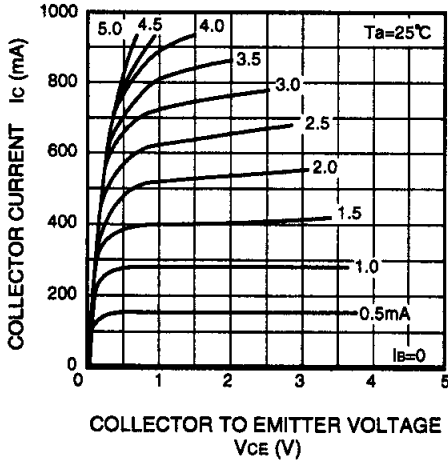
COLLECTOR DISSIPATION VS. AMBIENT TEMPERATURE



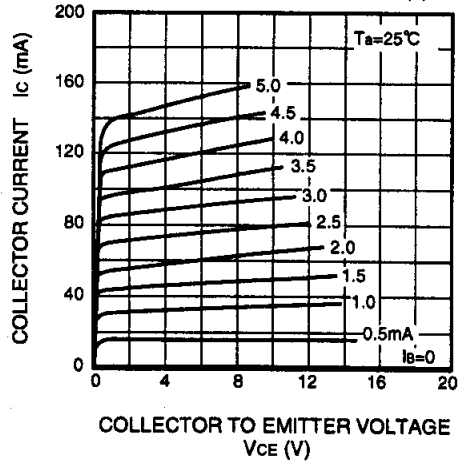
DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT



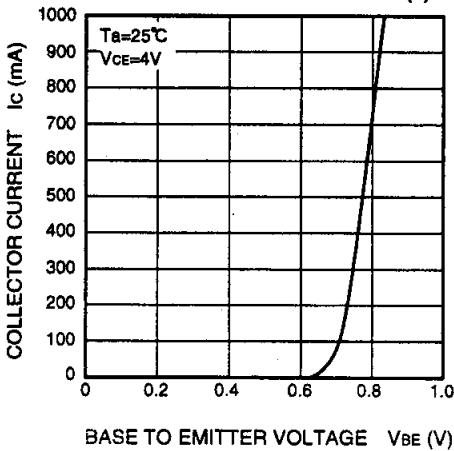
COMMON EMITTER OUTPUT (1)



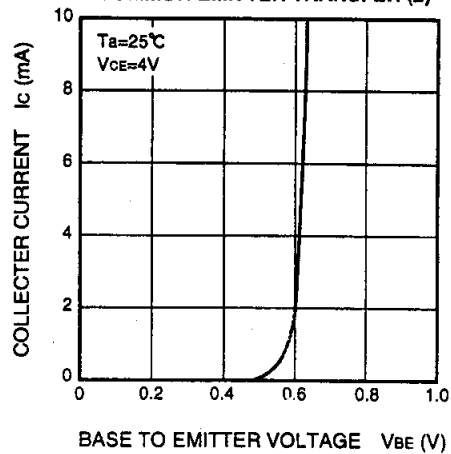
COMMON EMITTER OUTPUT (2)



COMMON EMITTER TRANSFER (1)



COMMON EMITTER TRANSFER (2)



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