〈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

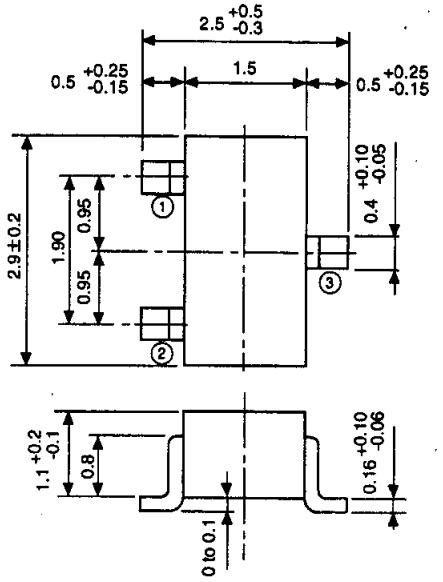
- Low collector to emitter saturation voltage
  $V_{CE(sat)}$=0.2V typ
- Excellent linearity of DC forward current gain
- Super mini package for easy mounting
- High collector current I_{CM}=1A
- High gain band width product f_T=180MHz typ

APPLICATION

Small type motor drive, relay drive, power supply.

OUTLINE DRAWING

Unit:mm



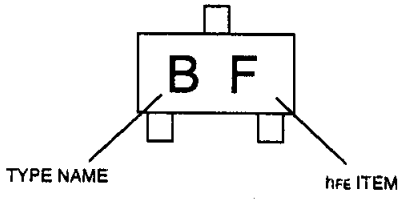
TERMINAL CONNECTOR

①: BASE
②: EMITTER
③: COLLECTOR

EIAJ : SC-59
JEDEC : TO-236 resemblance

Note)
The dimension without tolerance represent central value.

MARKING



MAXIMUM RATINGS (Ta=25℃)

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(Ta=25℃)	150	mW
T_j	Junction temperature	+125	℃
T_{stg}	Storage temperature	-55 to +125	℃

ELECTRICAL CHARACTERISTICS (Ta=25℃)

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
$V_{(BR)CBO}$	C to B break down voltage	I_C=10μA,I_E=0	25			V
$V_{(BR)EBO}$	E to B break down voltage	I_E=10μA,I_C=0	4			V
$V_{(BR)CEO}$	C to E break down voltage	I_C=100μA,R_{BE}=∞	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 h_{FE} classification in right table.

Marking	BE	BF	BG
h_{FE}	150 to 300	250 to 500	400 to 800

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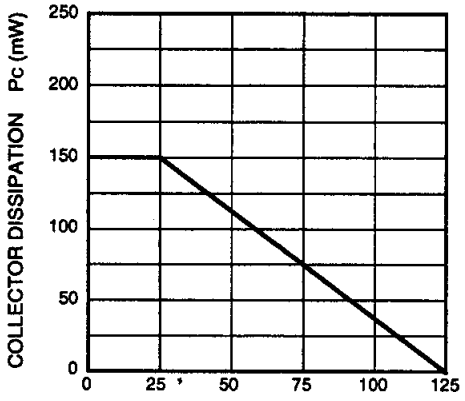
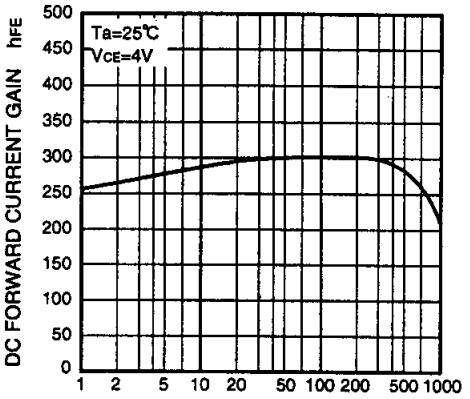
TYPICAL CHARACTERISTICS

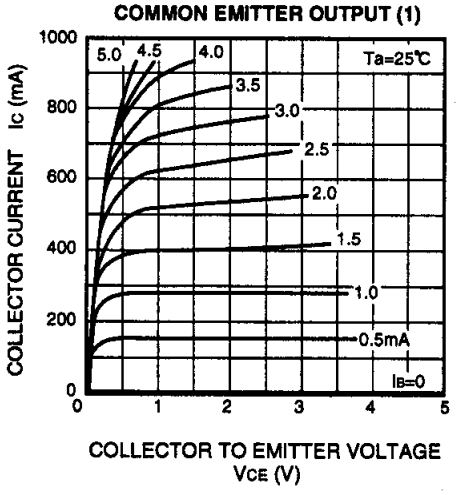
COLLECTOR DISSIPATION VS. AMBIENT TEMPERATURE



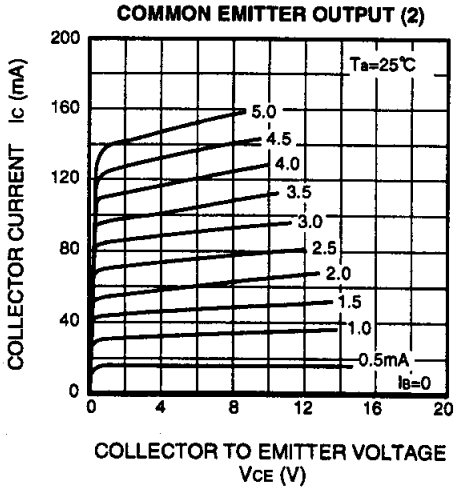
DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT



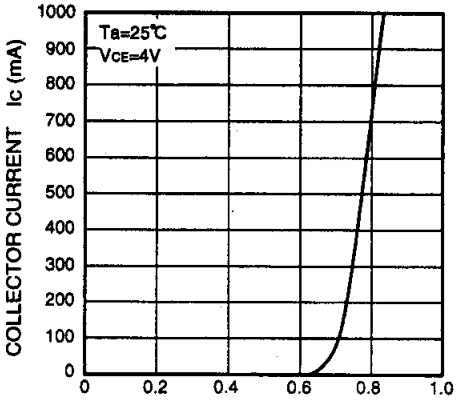
COMMON EMITTER OUTPUT (1)



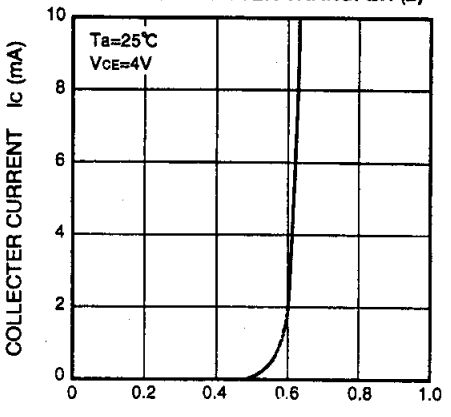
COMMON EMITTER OUTPUT (2)



COMMON EMITTER TRANSFER (1)



COMMON EMITTER TRANSFER (2)



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