

〈SMALL-SIGNAL TRANSISTOR〉

2SA1365

FOR HIGH CURRENT DRIVE APPLICATION
SILICON PNP EPITAXIAL TYPE

DESCRIPTION

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

Complementary with 2SC3440.

FEATURE

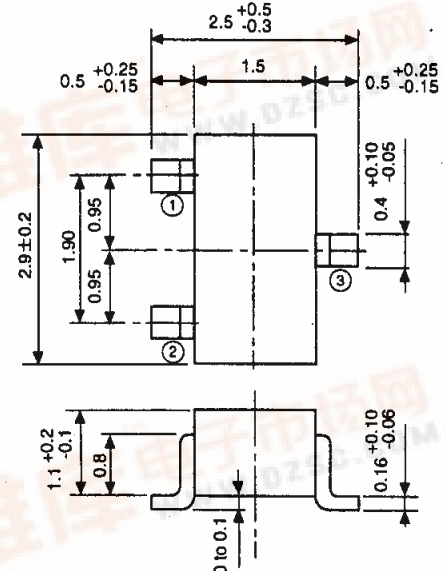
- Low collector to emitter saturation voltage
 $V_{CE(sat)} = -0.2V$ typ
- Excellent linearity of DC forward current gain
- Super mini package for easy mounting
- High collector current $I_{CM} = -1A$
- High gain band width product $f_T = 180MHz$ typ

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

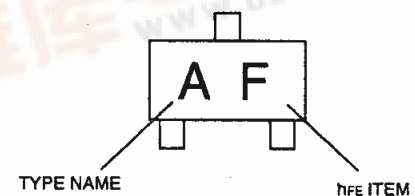
Note)

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_{stg}	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	AE	AF	AG
hFE	150 to 300	250 to 500	400 to 800

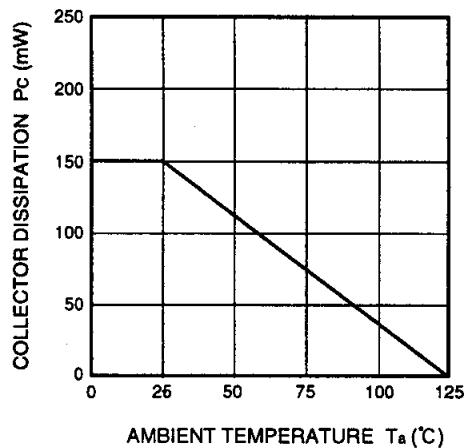
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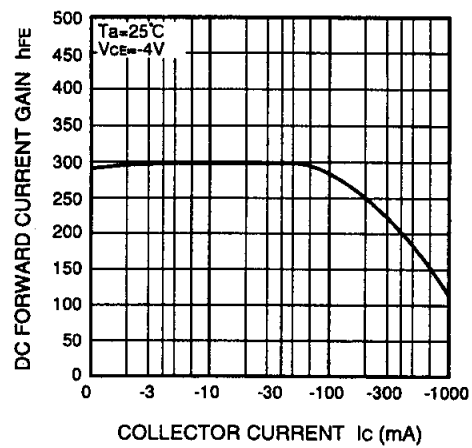
**FOR HIGH CURRENT DRIVE APPLICATION
SILICON PNP EPITAXIAL TYPE**

TYPICAL CHARACTERISTICS

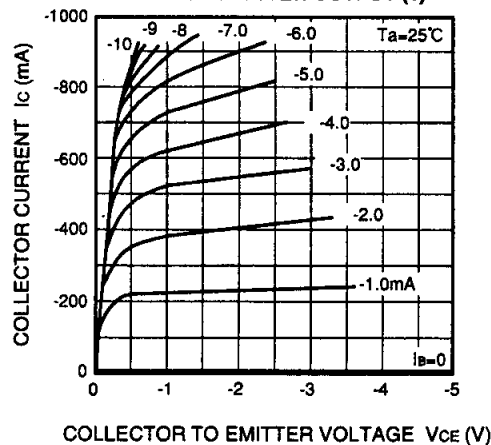
**COLLECTOR DISSIPATION VS.
AMBIENT TEMPERATURE**



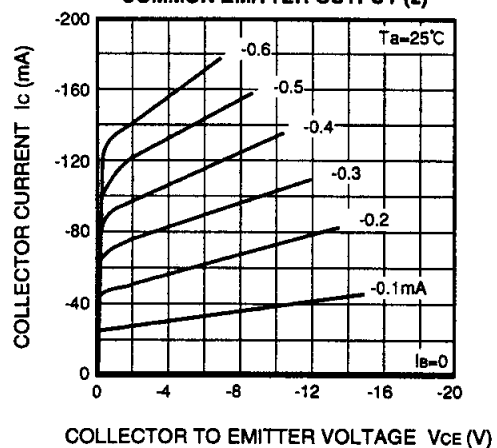
**DC FORWARD CURRENT GAIN
VS. COLLECTOR CURRENT**



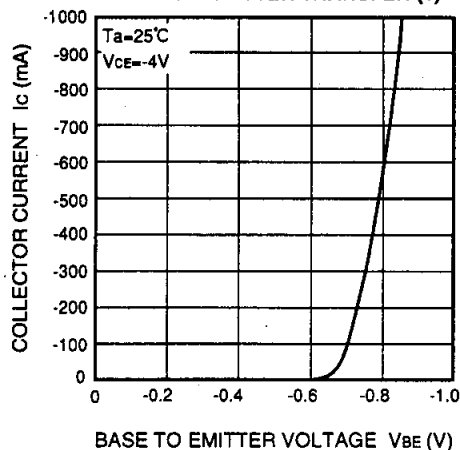
COMMON EMITTER OUTPUT (1)



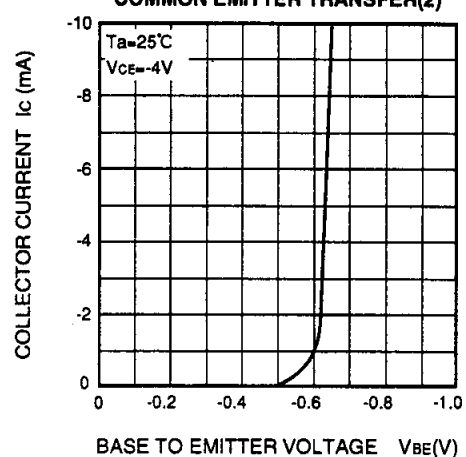
COMMON EMITTER OUTPUT (2)



COMMON EMITTER TRANSFER (1)



COMMON EMITTER TRANSFER (2)





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