〈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 Vce(sat).
Complementary with 2SC3440.

FEATURE

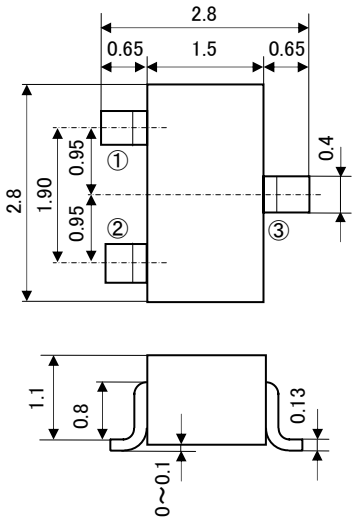
- ●Low collector to emitter saturation voltage.
  VCE(sat)=−0.2V typ
- ●Excellent linearity of DC forward current gain.
- ●Super mini package for easy mounting.
- ●High collector current I_{CM}=−1A
- ●High gain band width product fT=180MHz typ

APPLICATION

Small type motor drive, relay drive, power supply.

OUTLINE DRAWING

Unit:mm

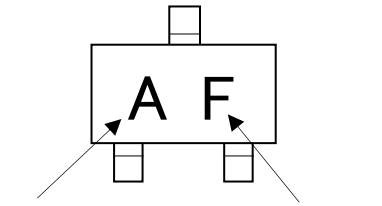


JEITA:SC-59
JEDEC:Similar to TO-236

TERMINAL CONNECTER
①:BASE
②:EMITTER
③:COLLECTOR

Note)
The dimension without tolerance represent central value.

MARKING



MAXIMUM RATINGS(Ta=25℃)

Parameter	Symbol	Ratings	Unit
Collector to Base voltage	V_{CBO}	−25	V
Emitter to Base voltage	V_{EBO}	−4	V
Collector to Emitter voltage	V_{CEO}	−20	V
Peak Collector current	I_{CM}	−1	A
Collector current	I_C	−700	mA
Collector dissipation (Ta=25℃)	P_C	200	mW
		※350	
Junction temperature	T_j	+150	℃
Storage temperature	T_{stg}	−55～+150	℃

※package mounted on substrate.

ELECTRICAL CHARACTERISTICS(Ta=25℃)

Parameter	Symbol	Test conditions	Limits			Unit
			Min	Typ	Max	
C to B breakdown voltage	$V(BR)_{CBO}$	I_C=−10μA , I_E=0	−25	−	−	V
E to B breakdown voltage	$V(BR)_{EBO}$	I_E=−10μA , I_C=0	−4	−	−	V
C to E breakdown voltage	$V(BR)_{CEO}$	I_C=−100μA ,R_{BE}=∞	−20	−	−	V
Collector cut off current	I_{CBO}	V_{CB}=−25V, I_E=0	−	−	−1	μA
Emitter cut off current	I_{EBO}	V_{EB}=−2V, I_C=0	−	−	−1	μA
DC forward current gain	hFE	V_{CE}=−4V, I_C=−100mA	150	−	800	−
C to E Saturation Vlotage	VCE(sat)	I_C=−500mA ,I_B=−25mA	−	−0.2	−0.5	V
Gain band width product	fT	V_{CE}=−6V, I_E=10mA	100	180	−	MHz

※) It shows hFE classification in below table

Marking	AE	AF	AG
hFE	150 to 300	250 to 500	400 to 800

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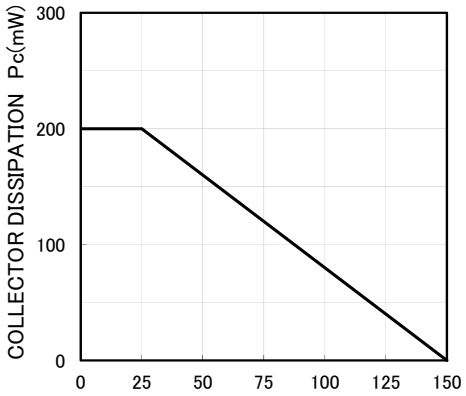
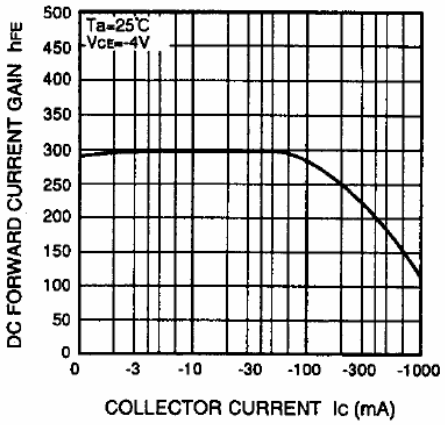
TYPICAL CHARACTERISTICS

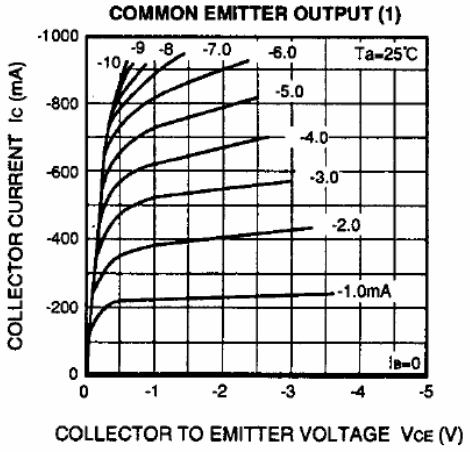
COLLECTOR DISSIPATION
VS AMBIENT TEMPERATURE



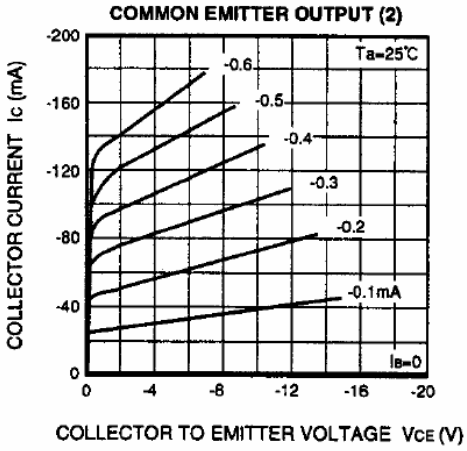
DC FORWARD CURRENT GAIN
VS. COLLECTOR CURRENT



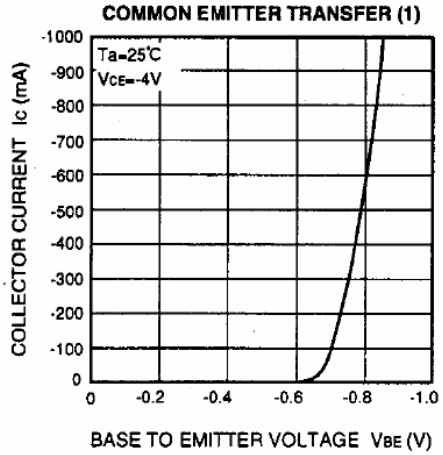
COMMON EMITTER OUTPUT (1)



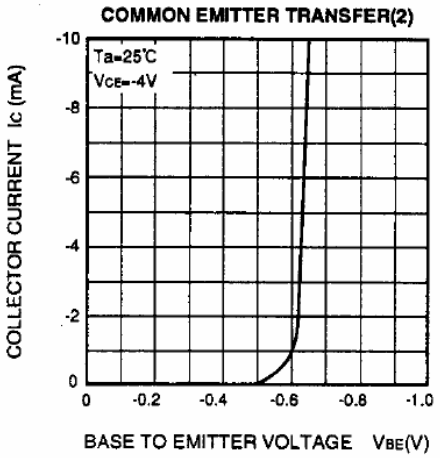
COMMON EMITTER OUTPUT (2)



COMMON EMITTER TRANSFER (1)



COMMON EMITTER TRANSFER(2)



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