

DESCRIPTION

2SA1398 is a silicon PNP epitaxial type transistor designed with high collector current, small $V_{CE(sat)}$.

Complementary with 2SC3580.

FEATURE

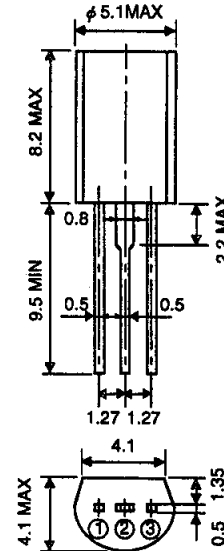
- High collector current $I_{CM} = -1A$
- High gain band width product $f_T = 180MHz$ typ
- Low collector to emitter saturation voltage $V_{CE(sat)} = -0.25V$ typ
- Excellent linearity of DC forward current gain

APPLICATION

Small type motor drive, relay drive, power supply application.

OUTLINE DRAWING

Unit:mm



TERMINAL CONNECTOR

- ① : EMITTER
 - ② : COLLECTOR
 - ③ : BASE
- EIAJ : —
JEDEC : —

Note)
The dimension without tolerance represent central value.

MAXIMUM RATINGS (Ta=25°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(Ta=25°C)	900	mW
T_j	Junction temperature	+150	°C
T_{stg}	Storage temperature	-55 to +150	°C

ELECTRIAL CHARACTERISTICS RATINGS (Ta=25°C)

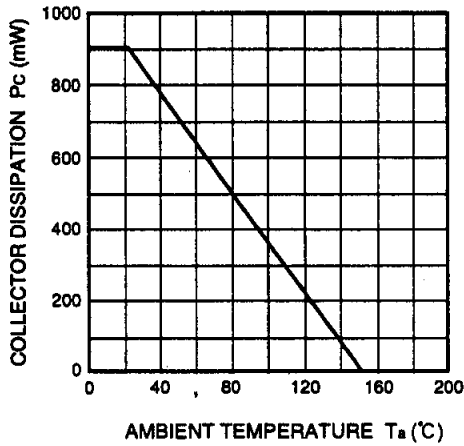
Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
$V_{(BR)CBO}$	C to B break down voltage	$I_C = -10 \mu A, I_E = 0$	-25			V
$V_{(BR)EBO}$	E to B break down voltage	$I_E = -10 \mu A, I_C = 0$	-4			V
$V_{(BR)CEO}$	C to E break down voltage	$I_C = -100 \mu A, R_{BE} = \infty$	-20			V
I_{CBO}	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
hFE *	DC forward current gain	$V_{CE} = -4V, I_C = -100mA$	150		800	—
$V_{CE(sat)}$	C to E saturation voltage	$I_C = -500mA, I_E = -25mA$		-0.25	-0.5	V
f_T	Gain band width product	$V_{CE} = -6V, I_E = 10mA$		180		MHz

* : It shows hFE classification in right table.

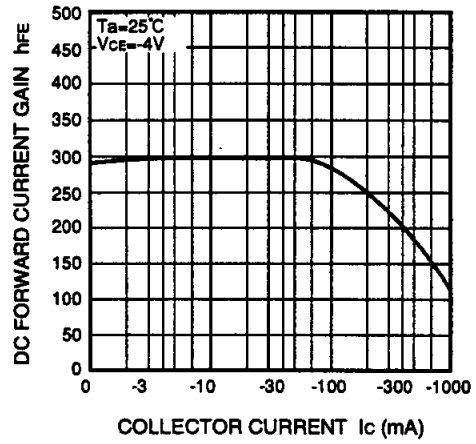
Item	E	F	G
hFE	150 to 300	250 to 500	400 to 800

TYPICAL CHARACTERISTICS

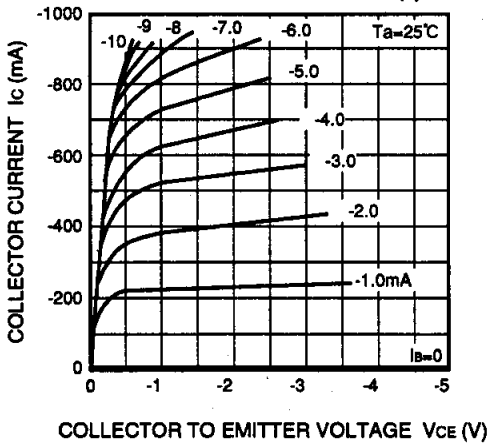
COLLECTOR DISSIPATION VS. AMBIENT TEMPERATURE



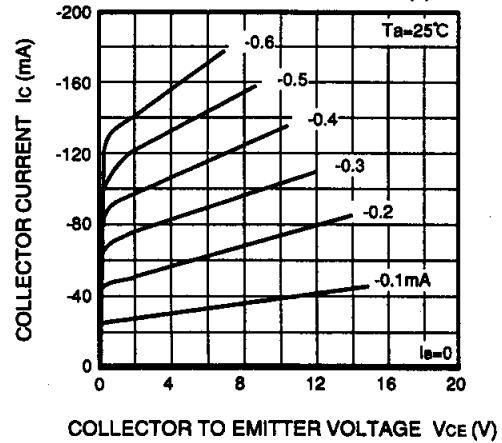
DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT



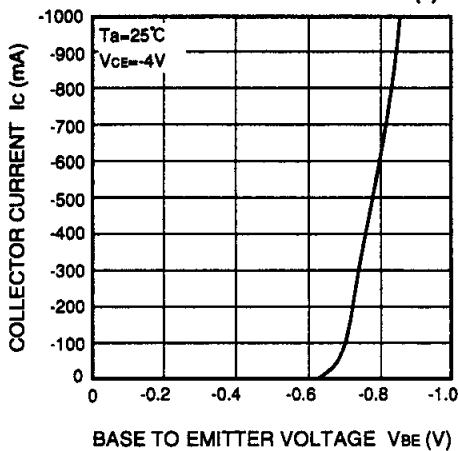
COMMON EMITTER OUTPUT (1)



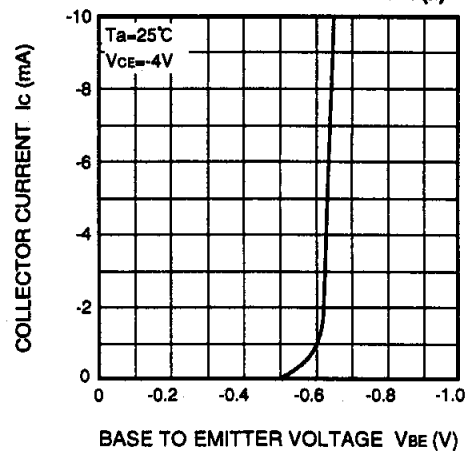
COMMON EMITTER OUTPUT (2)



COMMON EMITTER TRANSFER (1)



COMMON EMITTER TRANSFER (2)



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