

DESCRIPTION

Mitsubishi 2SA1946 is a resin sealed silicon PNP epitaxial type transistor. It is designed with high collector current and small $V_{CE(sat)}$.

Complementary with 2SC5212.

FEATURE

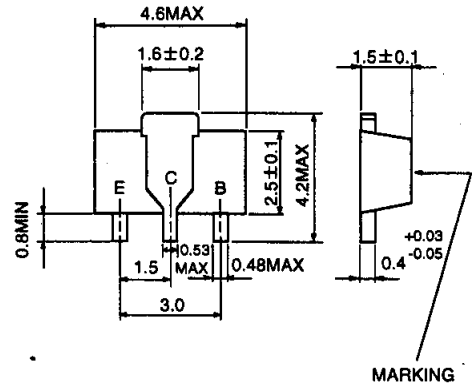
- Low collector saturation voltage
 $V_{CE(sat)} = -0.25V$ typ
- High f_T $f_T = 180MHz$ typ
- Excellent linearity of DC forward current gain
- High collector current $I_{CM} = -1A$
- Small package for mounting

APPLICATION

For relay drive, small motor drive, power supply application.

OUTLINE DRAWING

Unit:mm



TERMINAL CONNECTOR

- E : EMITTER
- C : COLLECTOR
- B : BASE
- EIAJ : SC-62
- JEDEC : -

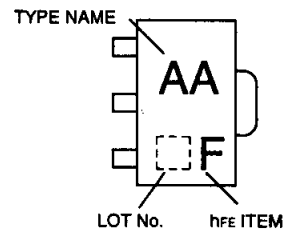
Note)

The dimension without tolerance represent central value.

MAXIMUM RATINGS (Ta=25°C)

Symbol	Parameter	Ratings	Unit
V_{CB0}	Collector to Base voltage	-25	V
V_{EB0}	Emitter to Base voltage	-4	V
V_{CE0}	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)	500	mW
T_J	Junction temperature	+150	°C
T_{stg}	Storage temperature	-55 to +150	°C

MARKING



ELECTRICAL CHARACTERISTICS (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	$V_{BE} = -2V, I_C = 0$			-1	μA
hFE *	DC forward current gain	$V_{CE} = -4V, I_C = -100mA$	150		800	—
$V_{CE(sat)}$	C to E saturation voltage	$I_C = -500mA, I_B = -25mA$		-0.25	-0.5	V
f_T	Gain band width product	$V_{CE} = -6V, I_E = 10mA$		180		MHz

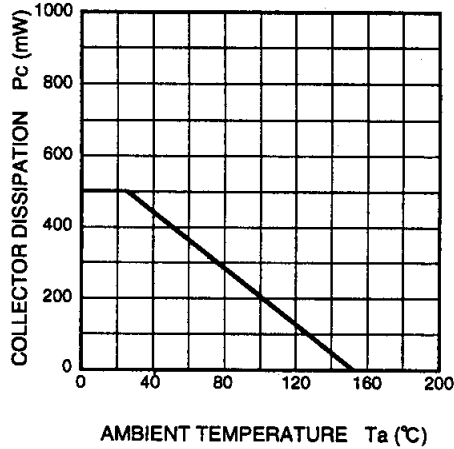
* : It shows hFE classification in right table.

Marking	AAE	AAF	AAG
hFE	150 to 300	250 to 500	400 to 800

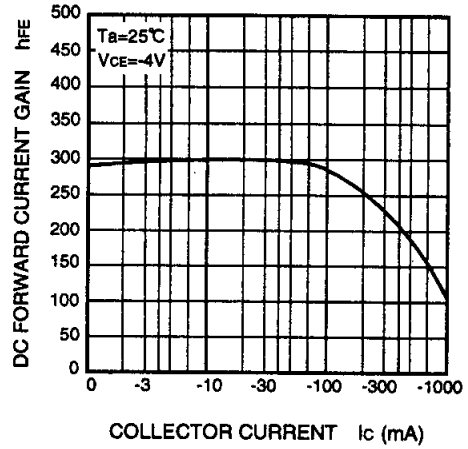
FOR HIGH CURRENT DRIVE APPLICATION
SILICON PNP EPITAXIAL TYPE

TYPICAL CHARACTERISTICS

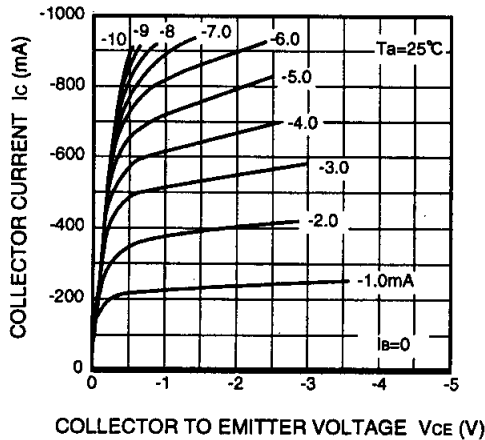
COLLECTOR DISSIPATION
VS. AMBIENT TEMPERATURE



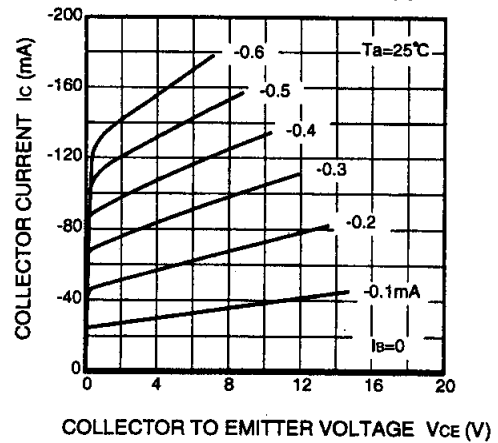
DC FORWARD CURRENT GAIN
VS. COLLECTOR CURRENT



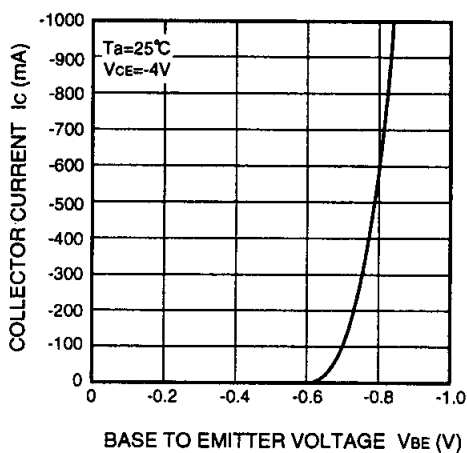
COMMON EMITTER OUTPUT(1)



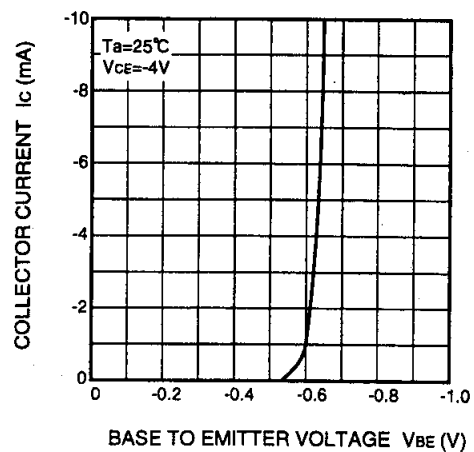
COMMON EMITTER OUTPUT(2)



COMMON EMITTER TRANSFER(1)



COMMON EMITTER TRANSFER(2)



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