

DESCRIPTION

Mitsubishi 2SA1945 is a resin sealed silicon PNP epitaxial type transistor. It is designed with high collector current and high voltage.

Complementary with 2SC5211.

FEATURE

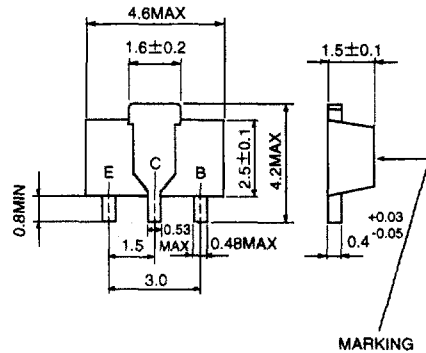
- High voltage $V_{CE0}=-50V$
- High f_T $f_T=150MHz$ typ
- Excellent linearity of DC forward current gain
- High collector current $I_{CM}=600mA$
- Small package for mounting

APPLICATION

For switching, small motor drive application.

OUTLINE DRAWING

Unit:mm



TERMINAL CONNECTOR

E : EMITTER
C : COLLECTOR EIAJ : SC-82
B : BASE JEDEC : -

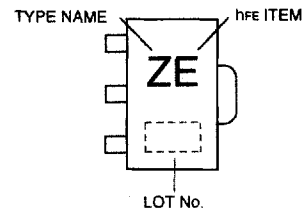
Note)

The dimension without tolerance represent central value.

MAXIMUM RATINGS ($T_a=25^\circ C$)

Symbol	Parameter	Ratings	Unit
V_{CB0}	Collector to Base voltage	-55	V
V_{EB0}	Emitter to Base voltage	-4	V
V_{CE0}	Collector to Emitter voltage	-50	V
I_{CM}	Peak collector current	-600	mA
I_C	Collector current	-400	mA
P_C	Collector dissipation($T_a=25^\circ C$)	500	mW
T_j	Junction temperature	+150	$^\circ C$
T_{stg}	Storage temperature	-55 to +150	$^\circ C$

MARKING



ELECTRICAL CHARACTERISTICS ($T_a=25^\circ C$)

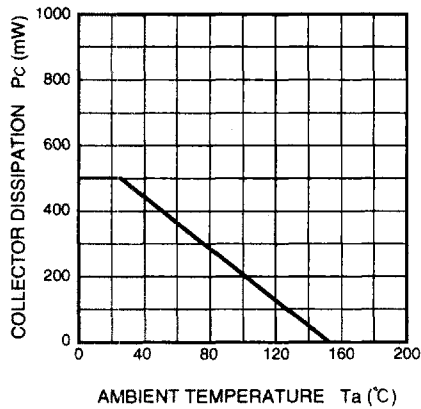
Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
$V_{(BR)CBO}$	C to B break down voltage	$I_C=-10 \mu A, I_E=0$	-55			V
$V_{(BR)EBO}$	E to B break down voltage	$I_E=-10 \mu A, I_C=0$	-4			V
$V_{(BR)CEO}$	C to E break down voltage	$I_C=-100 \mu A, R_{BE}=\infty$	-50			V
I_{CBO}	Collector 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	$V_{CE}=-4V, I_C=-100mA$	90		500	—
$V_{CE(sat)}$	C to E saturation voltage	$I_C=-200mA, I_B=-10mA$		-0.17	-0.5	V
f_T	Gain band width product	$V_{CE}=-6V, I_E=-10mA$		150		MHz

* : It shows h_{FE} classification in right table.

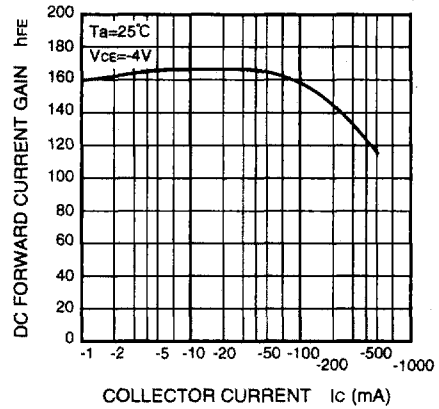
Marking	ZD	ZE	ZF
h_{FE}	90 to 180	150 to 300	250 to 500

TYPICAL CHARACTERISTICS

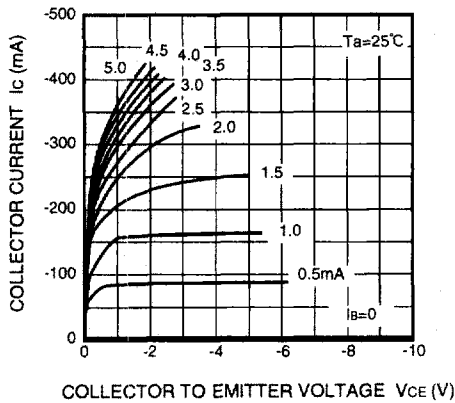
COLLECTOR DISSIPATION
VS. AMBIENT TEMPERATURE



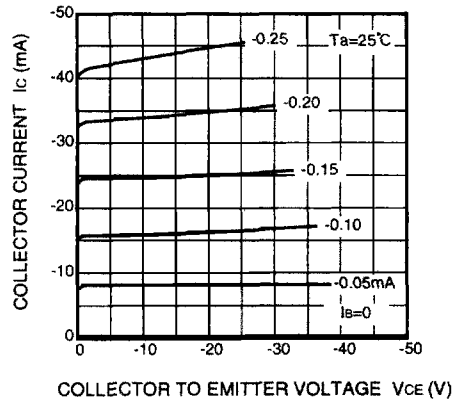
DC FORWARD CURRENT GAIN
VS. COLLECTOR CURRENT



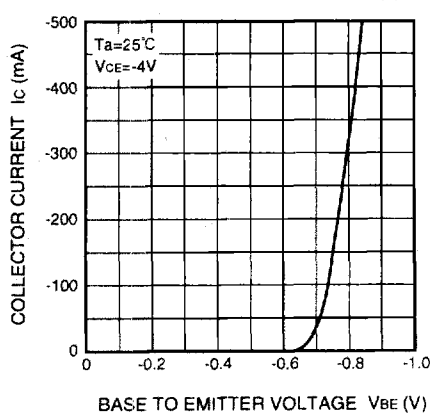
COMMON EMITTER OUTPUT(1)



COMMON EMITTER OUTPUT(2)



COMMON EMITTER TRANSFER(1)



COMMON EMITTER TRANSFER(2)

