

**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**

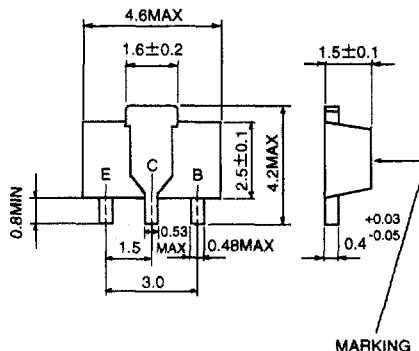
- High voltage  $V_{CE0}=-50V$
- High fr  $f_r=150MHz$  typ
- Excellent linearity of DC forward current gain
- High collector current  $I_{CM}=600mA$
- Small package for mounting

**APPLICATION**

For switching, small motor drive application.

**OUTLINE DRAWING**

Unit:mm



TERMINAL CONNECTOR

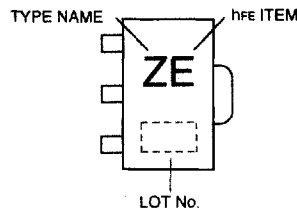
- E : EMITTER
- C : COLLECTOR EIAJ : SC-82
- B : BASE JEDEC : -

Note)  
The dimension without tolerance represent central value.

**MAXIMUM RATINGS (Ta=25°C)**

Symbol	Parameter	Ratings	Unit
Vcbo	Collector to Base voltage	-55	V
Vebo	Emitter to Base voltage	-4	V
Vceo	Collector to Emitter voltage	-50	V
Icm	Peak collector current	-600	mA
Ic	Collector current	-400	mA
Pc	Collector dissipation(Ta=25°C)	500	mW
Tj	Junction temperature	+150	°C
Tstg	Storage temperature	-55 to +150	°C

**MARKING**



**ELECTRICAL CHARACTERISTICS (Ta=25°C)**

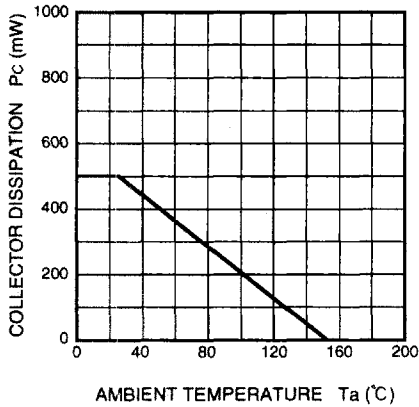
Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
V(BR)CBO	C to B break down voltage	IC=-10 μA, IE=0	-55			V
V(BR)EBO	E to B break down voltage	IE=-10 μA, IC=0	-4			V
V(BR)CEO	C to E break down voltage	IC=-100 μA, VBE=∞	-50			V
ICBO	Collector cut off current	VCB=-25V, IE=0			-1	μA
IEBO	Emitter cut off current	VBE=-2V, IC=0			-1	μA
hFE *	DC forward current gain	VCE=-4V, IC=-100mA		90	500	—
VCE(sat)	C to E saturation voltage	IC=-200mA, IB=-10mA		-0.17	-0.5	V
fr	Gain band width product	VCE=-6V, IE=-10mA		150		MHz

\* : It shows hFE classification in right table.

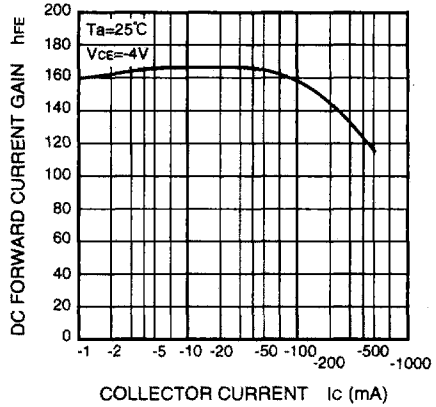
Marking	ZD	ZE	ZF
hFE	90 to 180	150 to 300	250 to 500

TYPICAL CHARACTERISTICS

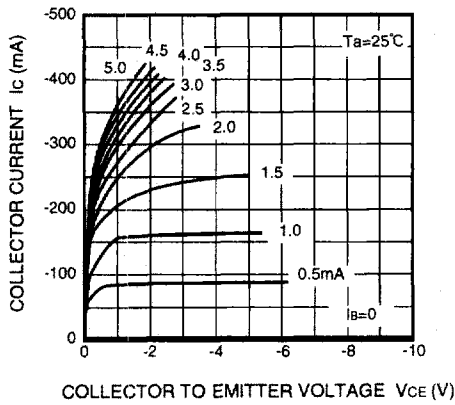
COLLECTOR DISSIPATION VS. AMBIENT TEMPERATURE



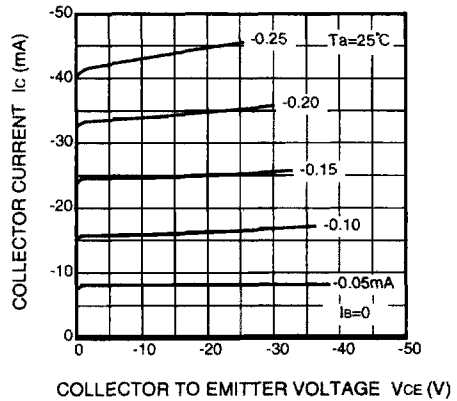
DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT



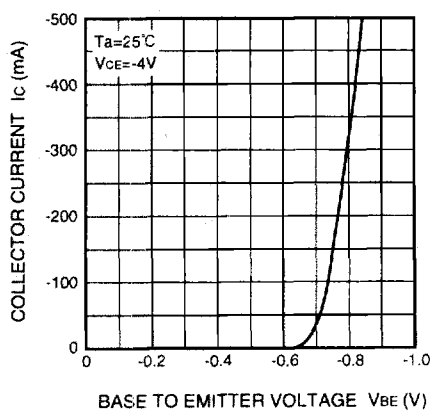
COMMON EMITTER OUTPUT(1)



COMMON EMITTER OUTPUT(2)



COMMON EMITTER TRANSFER(1)



COMMON EMITTER TRANSFER(2)

