

DESCRIPTION

2SA1944 is a silicon PNP epitaxial type transistor. It is designed with high voltage, high collector current and high hFE.
Complementary with 2SC5209.

FEATURE

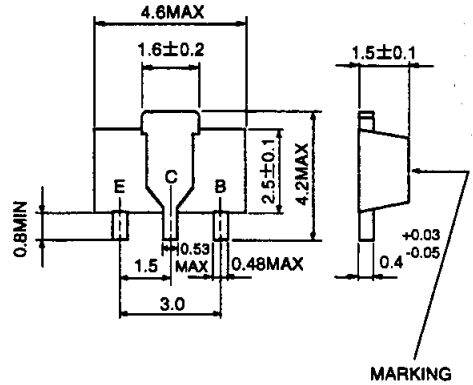
- High voltage $V_{CE0} = -50V$
- Low collector to emitter saturation voltage
 $V_{CE(sat)} = -0.2V$ typ (@ $I_C = -500mA, I_B = -10mA$)
- High hFE $h_{FE} = 400$ to 800
- Small package for mounting

APPLICATION

Audio machine, VCR, relay drive of other electronic machine, power supply.

OUTLINE DRAWING

Unit:mm



TERMINAL CONNECTOR

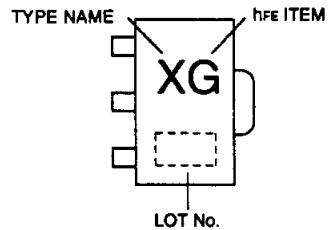
- E : EMITTER
- C : COLLECTOR
- B : BASE
- EIAJ : SC-62
- JEDEC : -

Note)
The dimension without tolerance represent central value.

MAXIMUM RATINGS (Ta=25°C)

Symbol	Parameter	Ratings	Unit
V_{CBO}	Collector to Base voltage	-50	V
V_{EBO}	Emitter to Base voltage	-6	V
V_{CEO}	Collector to Emitter voltage	-50	V
I_{CM}	Peak collector current	-2	A
I_C	Collector current	-1	A
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)

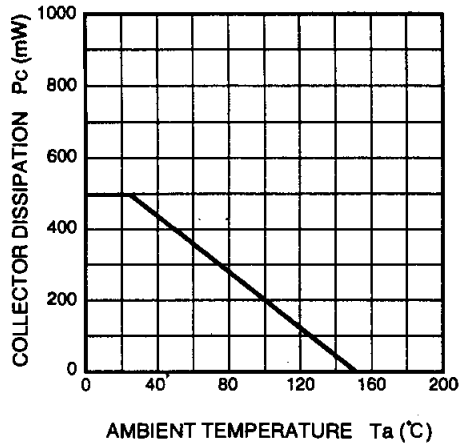
Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
$V_{(BR)CBO}$	C to B break down voltage	$I_C = -10 \mu A, I_E = 0$	-50			V
$V_{(BR)EBO}$	E to B break down voltage	$I_E = -10 \mu A, I_C = 0$	-6			V
$V_{(BR)CEO}$	C to E break down voltage	$I_C = -1mA, R_{BE} = \infty$	-50			V
I_{CBO}	Collector cut off current	$V_{CB} = -40V, I_E = 0$			-0.1	μA
I_{EBO}	Emitter cut off current	$V_{EB} = -2V, I_C = 0$			-0.1	μA
$h_{FE} *$	DC forward current gain	$V_{CE} = -6V, I_C = -100mA$	400		800	—
$V_{CE(sat)}$	C to E saturation voltage	$I_C = -500mA, I_B = -10mA$		-0.2	-0.5	V
f_T	Gain band width product	$V_{CE} = -10V, I_E = -10mA$		90		MHz
C_{ob}	Collector output capacitance	$V_{CB} = -10V, I_E = 0, f = 1MHz$		30		pF

* : It shows hFE classification in right table.

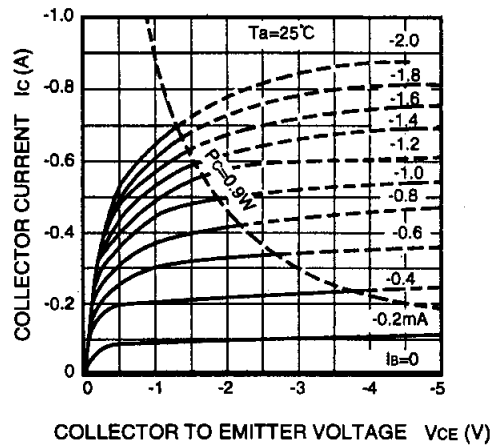
Marking	XG
hFE	400 to 800

TYPICAL CHARACTERISTICS

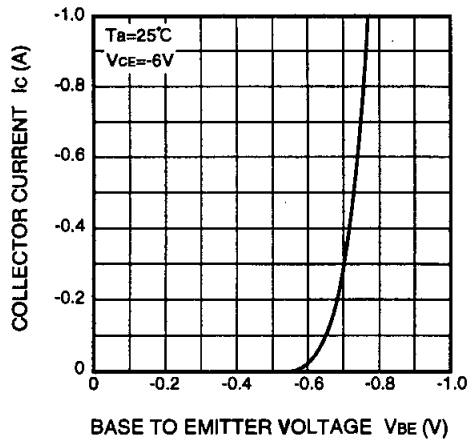
COLLECTOR DISSIPATION
VS. AMBIENT TEMPERATURE



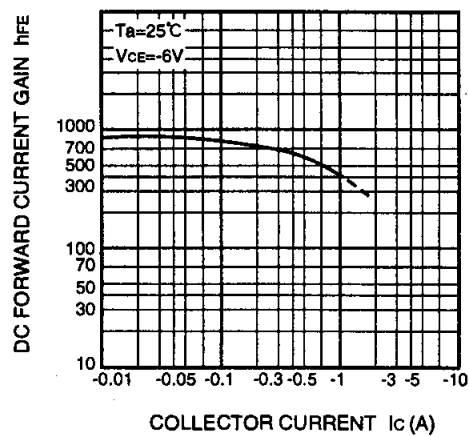
COMMON EMITTER OUTPUT



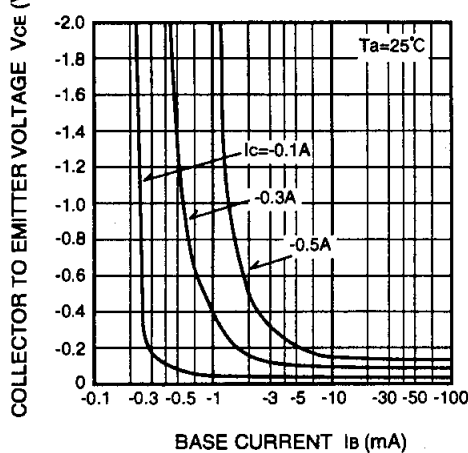
COMMON EMITTER TRANSFER



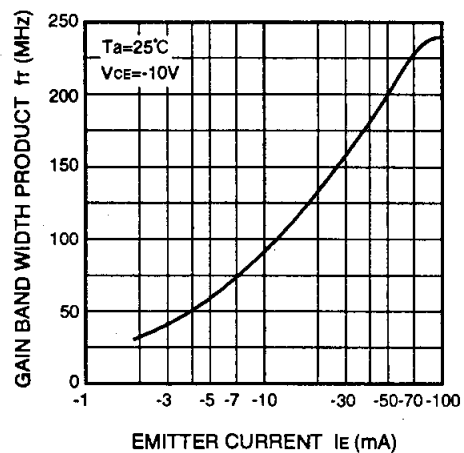
DC FORWARD CURRENT GAIN
VS. COLLECTOR CURRENT

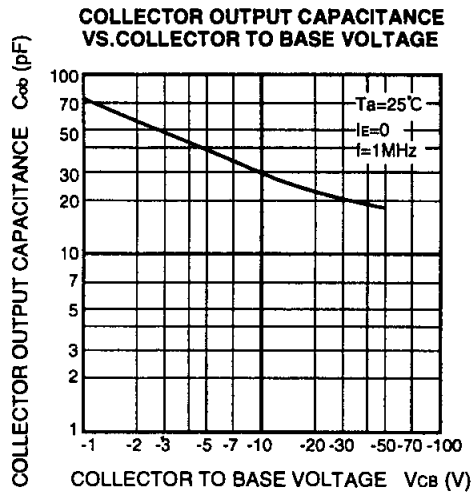


COLLECTOR TO EMITTER SATURATION
VOLTAGE VS. BASE CURRENT



GAIN BAND WIDTH PRODUCT
VS. EMITTER CURRENT





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