KODENSHI AUK

SBT2907A

PNP Silicon Transistor

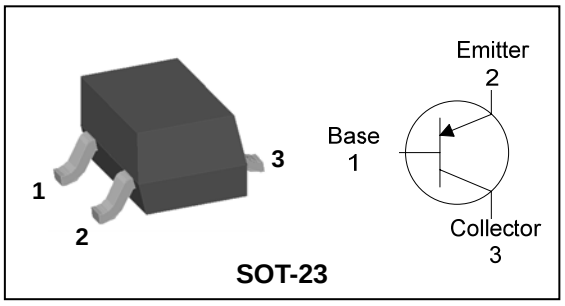
Descriptions

- General purpose application
- Switching application

Features

- Low Leakage current
- Low collector saturation voltage enabling low voltage operation
- Complementary pair with SBT2222A

PIN Connection



Ordering Information

Type NO.	Marking	Package Code
SBT2907A	2F □ ① ②	SOT-23

①Device Code ② Year&Week Code

Absolute maximum ratings

Ta=25°C

Characteristic	Symbol	Ratings	Unit
Collector-Base voltage	V_{CBO}	-60	V
Collector-Emitter voltage	V_{CEO}	-60	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current	I_C	-0.6	A(DC)
	I_{CP}*	-1.2	A(Pulse)
Collector dissipation	P_C**	350	mW
Junction temperature	T_j	150	°C
Storage temperature range	T_{stg}	-55~150	°C

* : Single pulse, tp= 300 μs

** : Package mounted on 99.5% alumina 10×8×0.6mm

Electrical Characteristics

Ta=25°C

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base breakdown voltage	BV_{CBO}	I_C=-10μA, I_E=0	-60	-	-	V
Collector-Emitter breakdown voltage	BV_{CEO}	I_C=-1mA, I_B=0	-60	-	-	V
Emitter-Base breakdown voltage	BV_{EBO}	I_E=-10μA, I_C=0	-5	-	-	V
Collector cut-off current	I_{CBO}	V_{CB}=-60V, I_E=0	-	-	-20	nA
Collector cut-off current	I_{CEX}	V_{CE}=-30V, V_{EB}=-0.5V	-	-	-50	nA
DC current gain	h_{FE}	V_{CE}=-10V, I_C=-10mA	100	-	-	-
Collector-Emitter saturation voltage	$V_{CE(sat)}$	I_C=-150mA, I_B=-15mA	-	-	-0.4	V
Transition frequency	f_T	V_{CE}=-5.0V, I_C=-20mA, f=100MHz	200	-	-	MHz
Collector output capacitance	C_{ob}	V_{CB}=-10V, I_E=0, f=1MHz	-	-	8	pF
Turn-on time	t_{on}	V_{CC}=-30V_{dc}, I_C=-150mA_{dc}, I_{B1}=-15mA_{dc}	-	-	45	ns
Delay time	t_d		-	-	10	ns
Rise time	t_r		-	-	40	ns
Turn-off time	t_{off}	V_{CC}=-6.0V_{dc}, I_C=-150mA_{dc}, I_{B1}=I_{B2}=-15mA_{dc}	-	-	100	ns
Storage time	t_s		-	-	80	ns
Fall time	t_f		-	-	30	ns

Electrical Characteristic Curves

Fig. 1 P_C - T_a

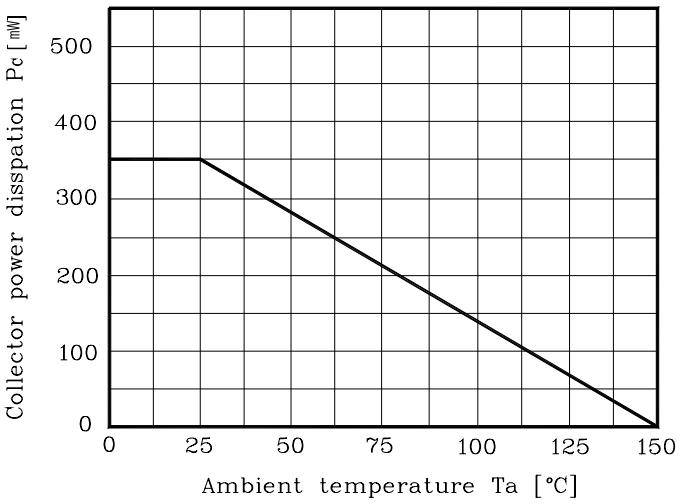


Fig. 2 h_{FE} - I_C

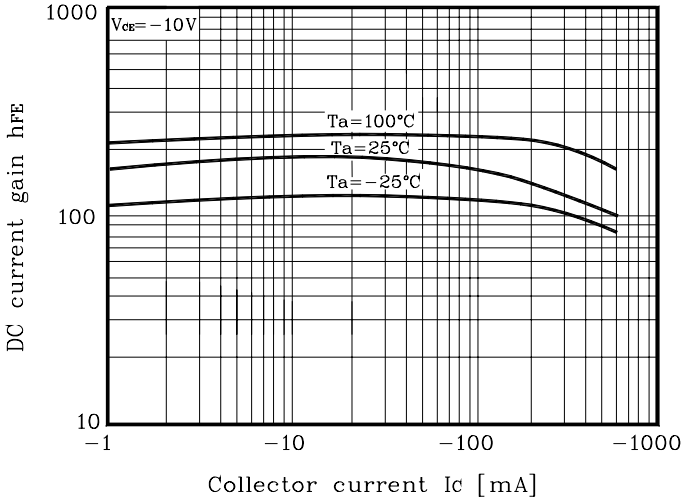


Fig. 3 I_C - $V_{CE(SAT)}$

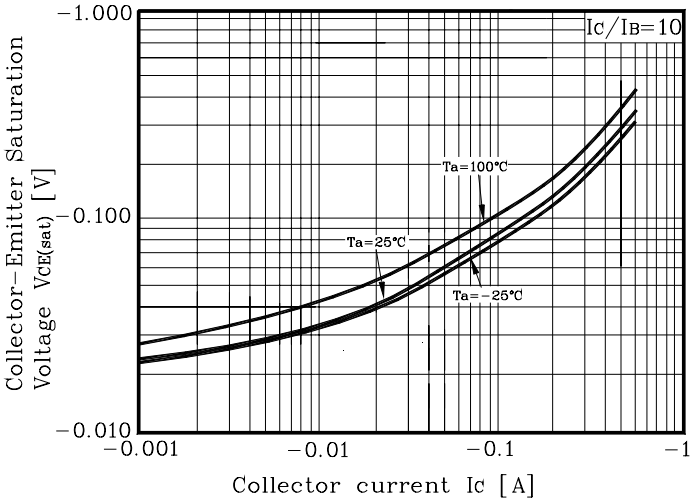


Fig. 4 I_C – $V_{BE(SAT)}$

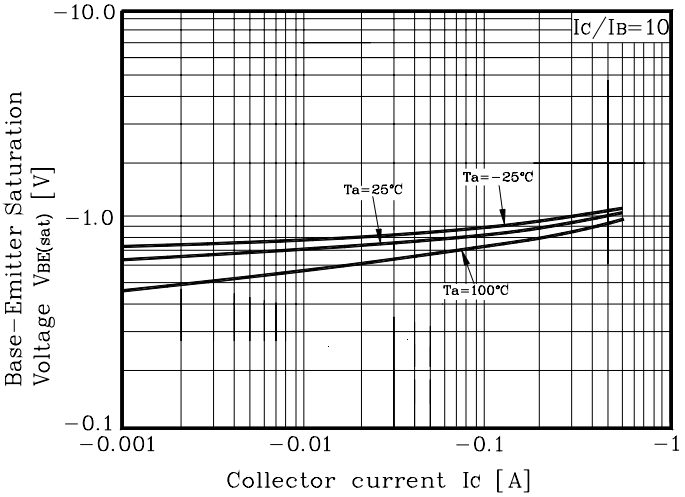
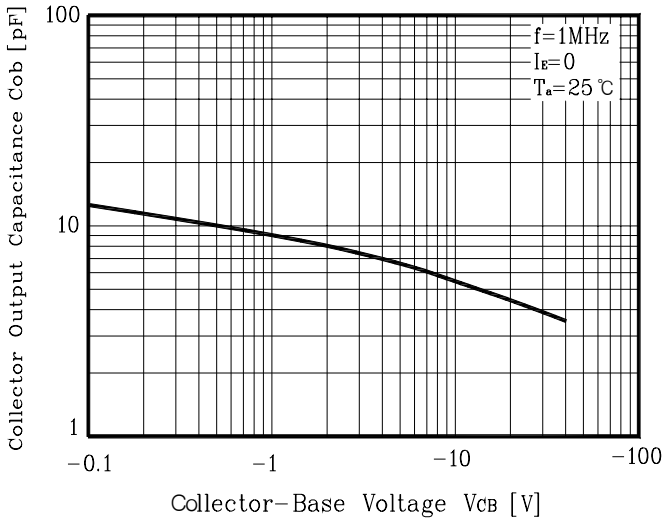
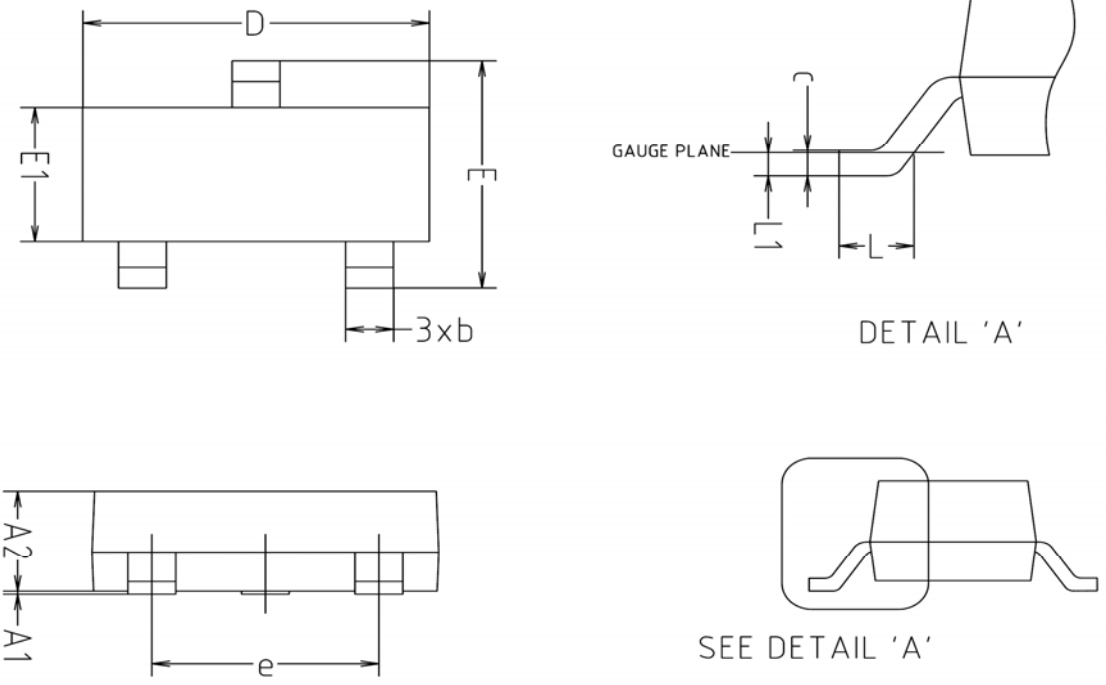


Fig. 5 C_{ob}-V_{CB}

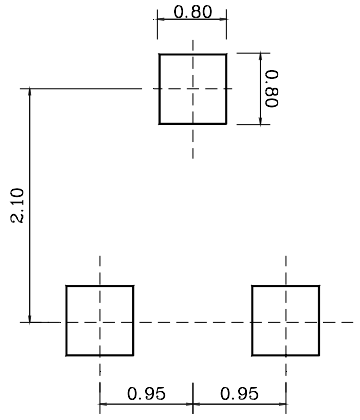


Outline Dimension



SYMBOL	MILLIMETERS			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A1	0.00	-	0.10	
A2	0.82	-	1.02	
b	0.39	0.42	0.45	
c	0.09	0.12	0.15	
D	2.80	2.90	3.00	
E	2.20	2.40	2.60	
E1	1.20	1.30	1.40	
e	1.90BSC			
L	0.20	-	-	
L1	0.12BSC			

※Recommend PCB solder land [Unit: mm]



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