

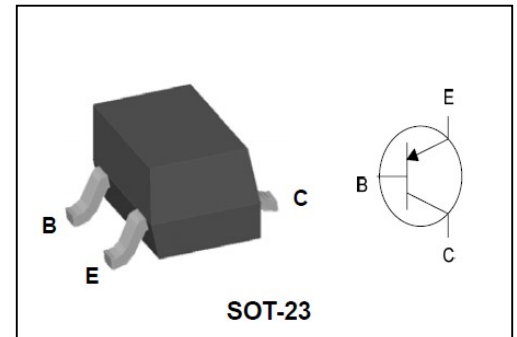
Descriptions

- General purpose Bipolar Transistor

PIN Connection

Features

- Large collector current
- Suitable for low-Voltage operation because of Its low saturation voltage
- Complementary pair with K8050S



Ordering Information

Type NO.	Marking	Package Code
K8550S	KV □ □ ① ② ③	SOT-23

① Device Code ② HFE Grade ③ Year & Week Code • AUK Dalian

Absolute maximum ratings

Ta=25°C

Characteristic	Symbol	Ratings	Unit
Collector-Base voltage	V_{CB0}	-40	V
Collector-Emitter voltage	V_{CEO}	-25	V
Emitter-base voltage	V_{EBO}	-6	V
Collector current	I_C	-500	mA
Collector dissipation	P_C	350	mW
Junction temperature	T_j	150	°C
Storage temperature range	T_{stg}	-55~150	°C

Electrical Characteristics

Ta=25°C

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Emitter breakdown voltage	BV_{CEO}	$I_C = -1mA, I_B = 0$	-25	-	-	V
Collector cut-off current	I_{CBO}	$V_{CB} = -30V, I_E = 0$	-	-	-0.1	uA
Emitter cut-off current	I_{EBO}	$V_{EB} = -6V, I_C = 0$	-	-	-0.1	uA
DC current gain	h_{FE}	$V_{CE} = -1V, I_C = -50mA$	100	-	700	-
Collector-Emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500mA, I_B = -50mA$	-	-	-0.5	V
Transition frequency	f_T	$V_{CE} = -6V, I_C = -20mA,$	-	200	-	MHz
Collector-Base capacitance	C_{cb}	$V_{CB} = -6V, I_E = 0, f = 1MHz$	-	7.5	-	pF

HFE Grade: C:100~180 D:160~300 E:280~700

Mark Name: C: KV8 D: KV9 E: KVA

Electrical Characteristic Curves

Fig. 1 $P_C - T_a$

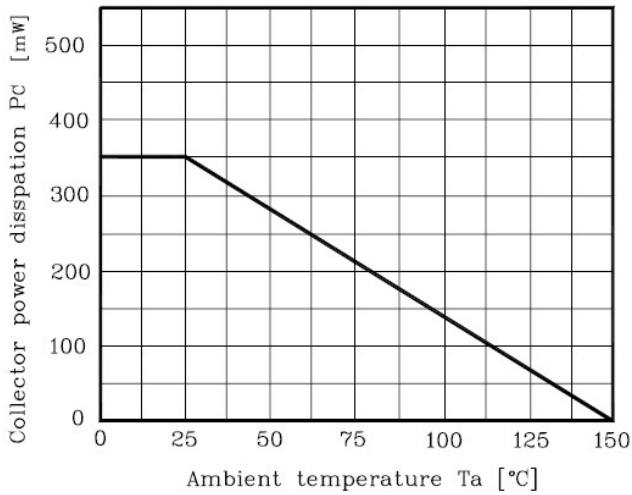


Fig. 2 $I_C - V_{BE}$

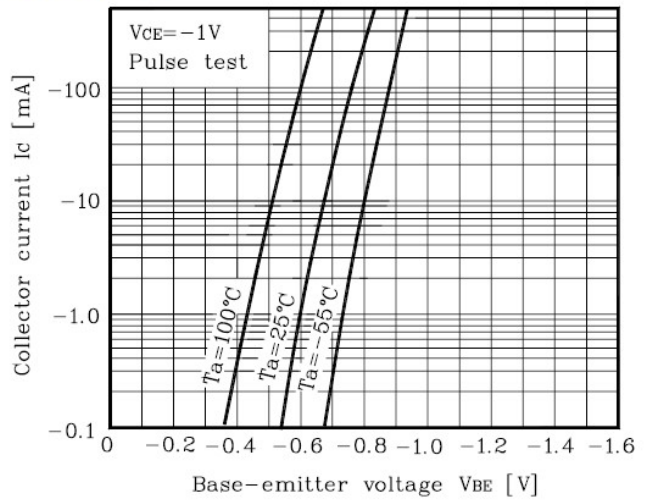


Fig. 3 $I_C - V_{CE}$

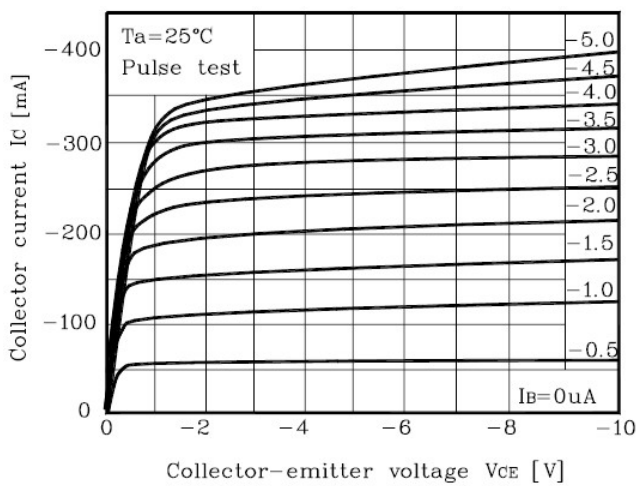


Fig. 4 $V_{CE(sat)} - I_C$

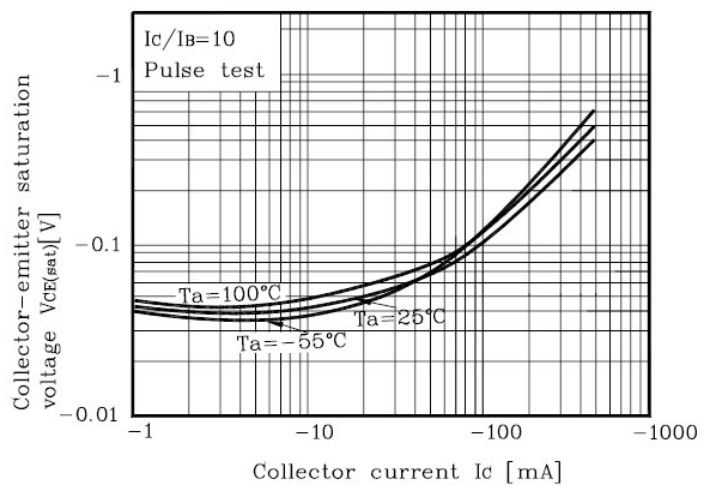


Fig. 5 $h_{FE} - I_C$

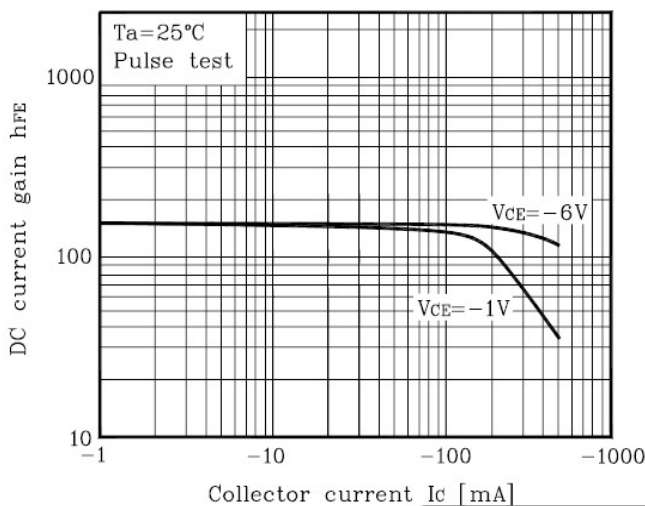
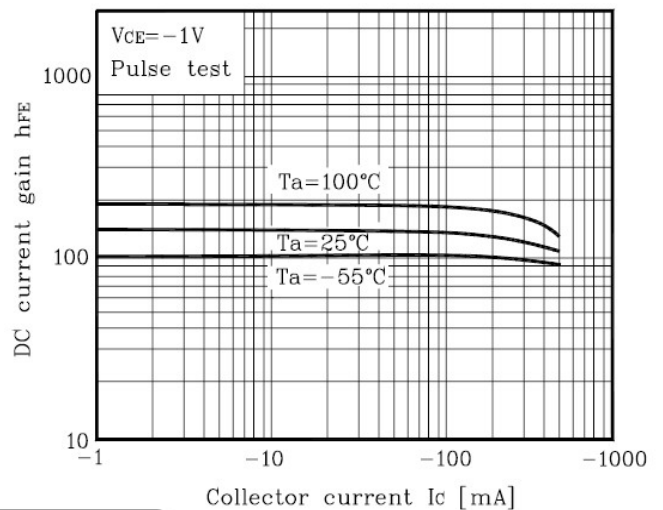
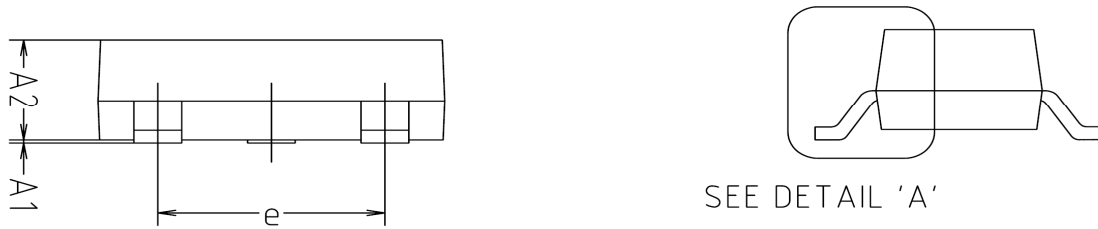
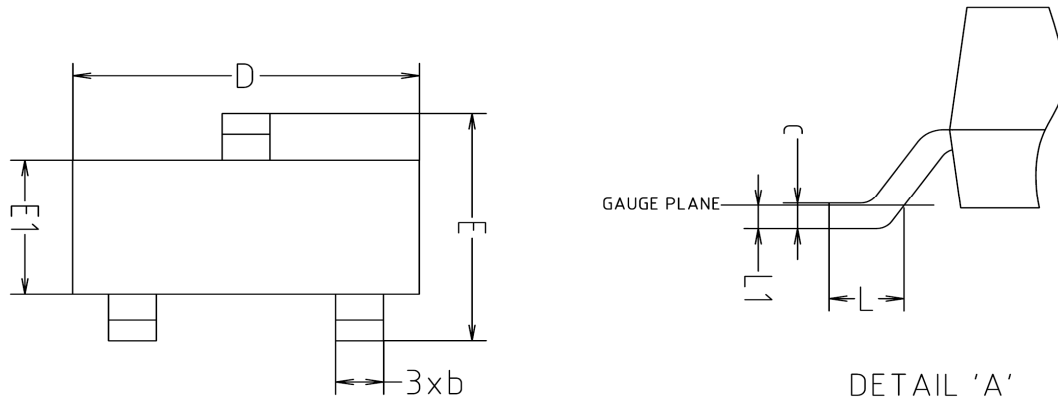


Fig. 6 $h_{FE} - I_C$

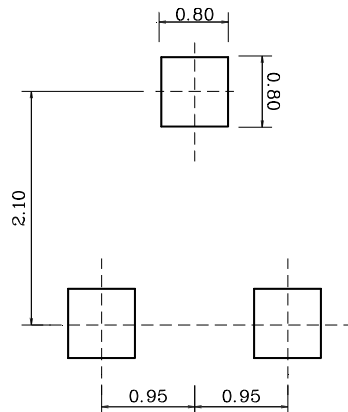


Outline Dimension



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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