KODENSHI AUK

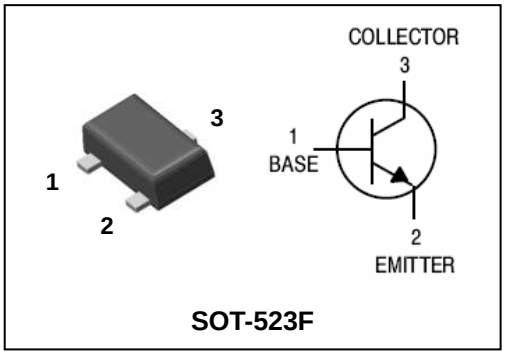
STD6528EF

NPN Silicon Transistor

Application

- Micom Direct drive and switching Application

PIN Connection



SOT-523F

Features

- Very low saturation voltage: $V_{CE(sat)}$= 0.2V (Max.) @ I_C= 50mA, I_B= 5mA
- High DC current gain: h_{FE}= 1000~2500
- Small size SMD package

Ordering Information

Type NO.	Marking	Package Code
STD6528EF	ZB □ ① ②	SOT-523F

①Device Code ② Year&Week Code

Absolute Maximum Ratings

Ta=25°C

Characteristic	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	25	V
Collector-emitter voltage	V_{CEO}	20	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	150	mA
Collector power dissipation	P_C	150	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	20	-	-	V
Collector cut-off current	I_{CBO}	V_{CB}= 25V, I_E= 0	-	-	0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}= 5V, I_C= 0	-	-	0.1	μA
DC current gain	h_{FE}	V_{CE}= 2V, I_C= 4mA	1000	-	2500	-
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C= 100 μA, I_B= 10 μA	-	0.03	-	V
		I_C= 50mA, I_B= 5mA	-	-	0.2	
Base-emitter voltage	V_{BE}	V_{CE}= 2V, I_C= 4mA	-	0.6	-	V
Transition frequency	f_T	V_{CE}= 10V, I_C= 1mA	-	150	-	MHz
Collector output capacitance	C_{ob}	V_{CB}= 10V, I_E= 0, f= 1MHz	-	1.5	-	pF

Electrical Characteristic Curves

Fig. 1 P_C –T_a

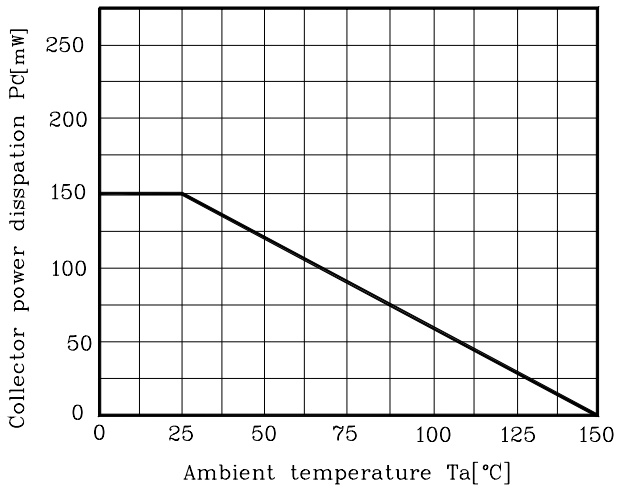


Fig. 2 I_C -V_{BE}

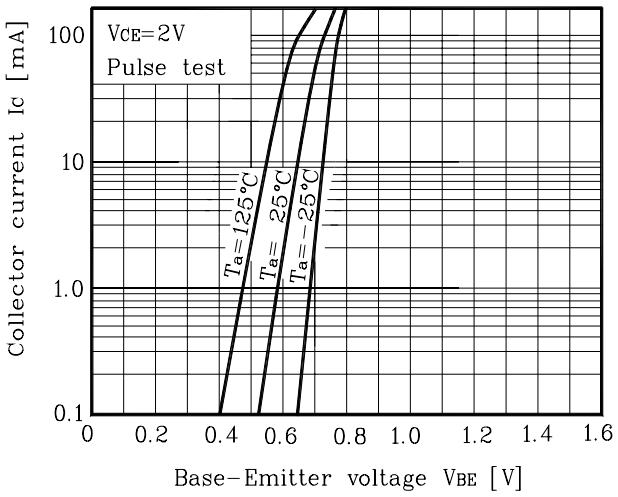


Fig. 3 I_C -V_{CE}

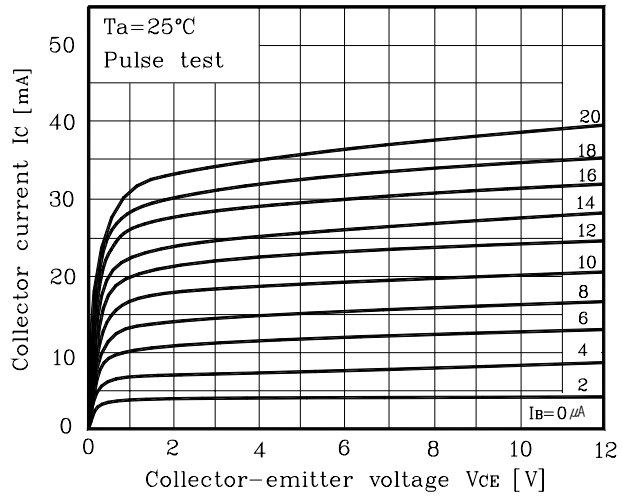


Fig. 4 h_{FE} -I_C

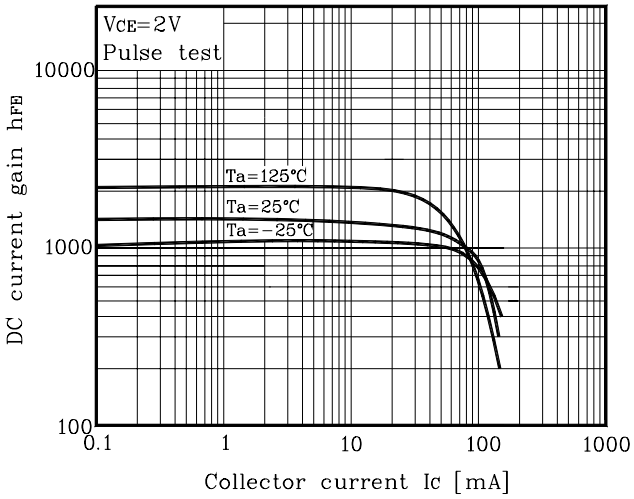


Fig. 5 h_{FE} -I_C

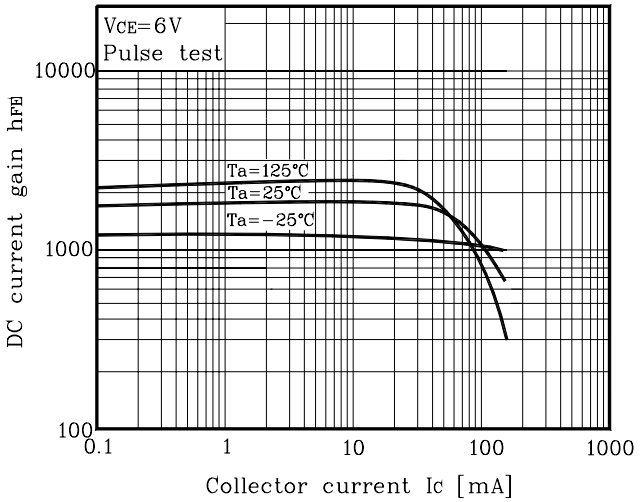
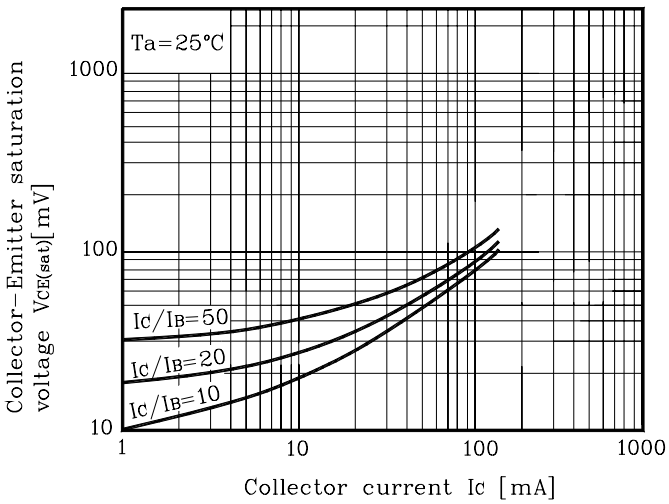


Fig. 6 $V_{CE(sat)}$ - I_C



Electrical Characteristic Curves

Fig. 7 Cob - V_{CB}

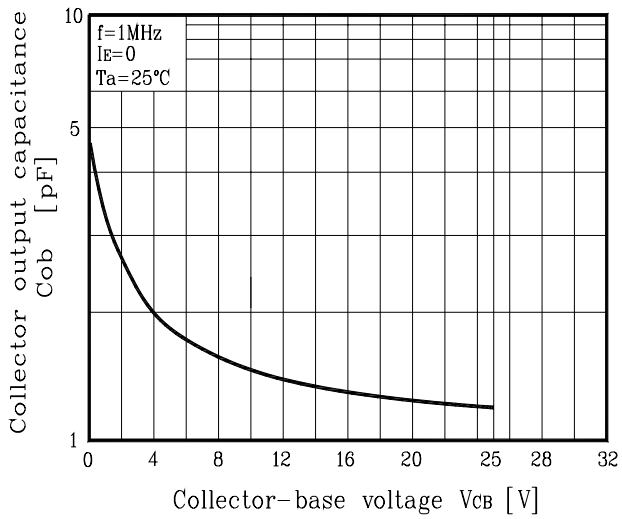
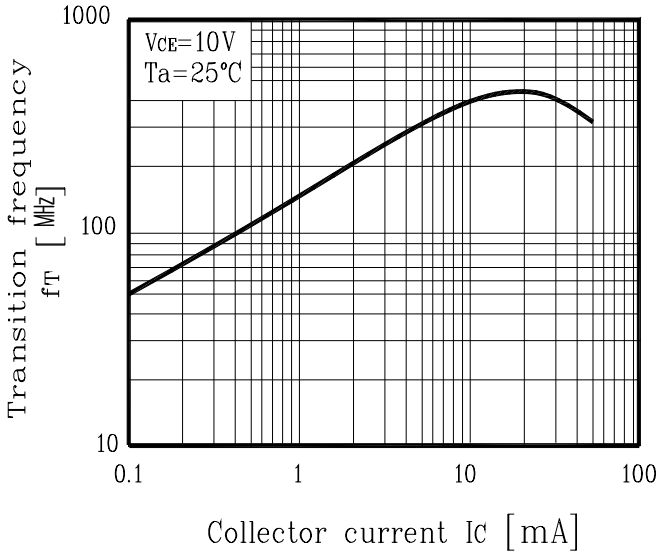
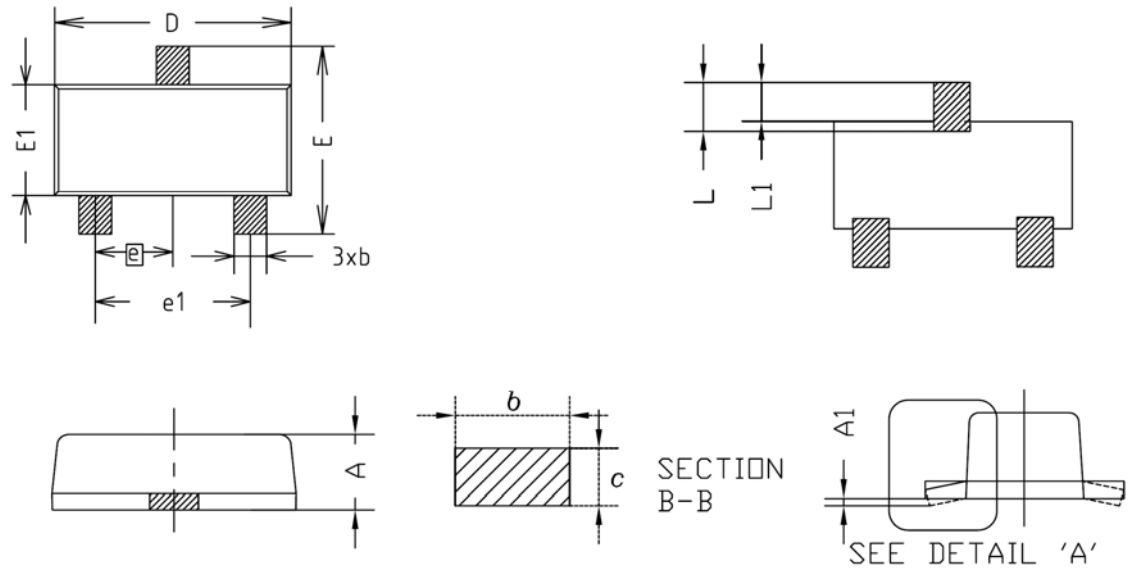


Fig. 8 f_T - I_C

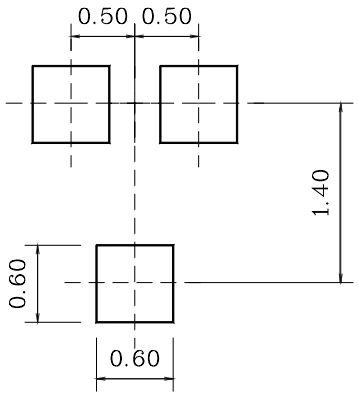


Outline Dimension



SYMBOL	MILLIMETERS			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A	0.63	0.68	0.73	
A1	0.00	–	0.10	
A2	–	–	–	
b	0.25	0.30	0.35	
c	0.04	0.11	0.20	
D	1.50	1.60	1.70	
E	1.50	1.60	1.70	
E1	0.78	0.88	0.98	
e	0.50BSC			
e1	0.90	–	1.10	
L	0.34	0.44	0.54	
L1	0.28	0.34	0.43	

※Recommend PCB solder land [Unit: mm]



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