KODENSHI AUK

STD882D

NPN Silicon Transistor

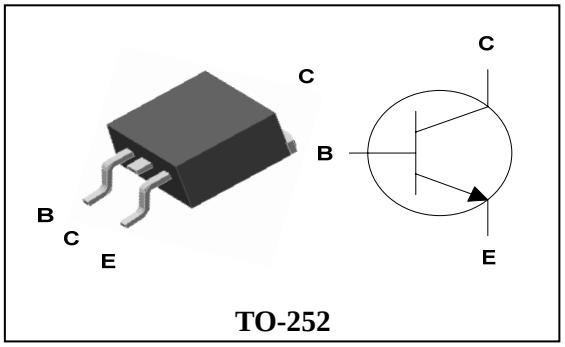
Description

- Suitable for low voltage large current drivers
- Excellent h_{FE} Linearity
- Complementary pair with STB772D
- Switching Application

Features

- Low collector saturation voltage
  $V_{CE(sat)}$= 0.4V(Max.)

PIN Connection



TO-252

Ordering Information

Type NO.	Marking	Package Code
STD882D	STD882	TO-252

Absolute maximum ratings

(Ta=25°C)

Characteristic	Symbol	Ratings	Unit
Collector-Base voltage	V_{CBO}	40	V
Collector-Emitter voltage	V_{CEO}	15	V
Emitter-Base voltage	V_{EBO}	7	V
Collector current	I_C	5	A(DC)
	I_{CP}*	10	A(Pulse)
Collector Power dissipation (Tc= 25℃)	P_C	15	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55~150	°C

* : Single pulse, tp= 300 μs

Electrical Characteristics

(Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base breakdown voltage	BV_{CBO}	I_C= 50μA, I_E= 0	40	-	-	V
Collector-Emitter breakdown voltage	BV_{CEO}	I_C= 1mA, I_B= 0	15	-	-	V
Emitter-Base breakdown voltage	BV_{EBO}	I_E= 50μA, I_C= 0	7	-	-	V
Collector cut-off current	I_{CBO}	V_{CB}= 30V, 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}^{1}	V_{CE}= 2V, I_C= 0.5A	160	-	320	-
	h_{FE}^{2}	V_{CE}= 2V, I_C= 2A	100	-	-	-
Collector-Emitter saturation voltage	$V_{CE(sat)}$	I_C= 3A, I_B= 100mA	-	-	0.4	V
Transition frequency	f_T	V_{CE}= 6V, I_E= -50mA	-	150	-	MHz
Collector output capacitance	C_{ob}	V_{CB}= 20V, I_E= 0, f= 1MHz	-	-	50	pF

* HFE rank :160~320 Only

Electrical Characteristic Curves

Fig. 1 Pc - Ta

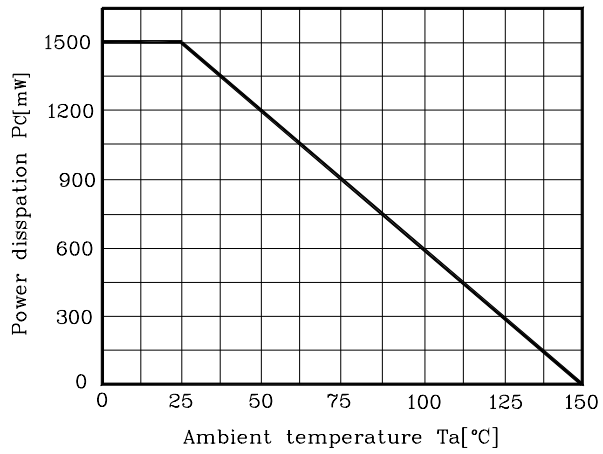


Fig. 2 h_{FE} - I_C

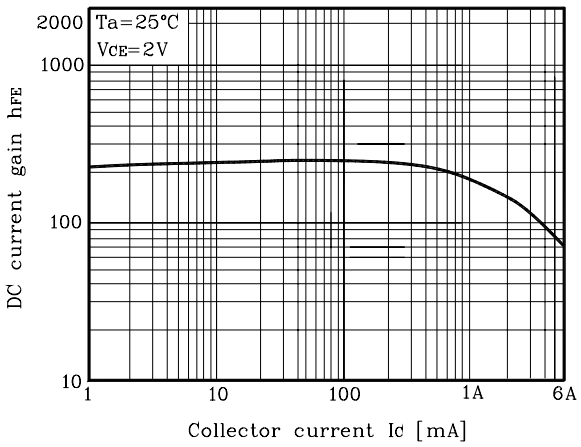


Fig. 3 $V_{CE(sat)}$ - I_C

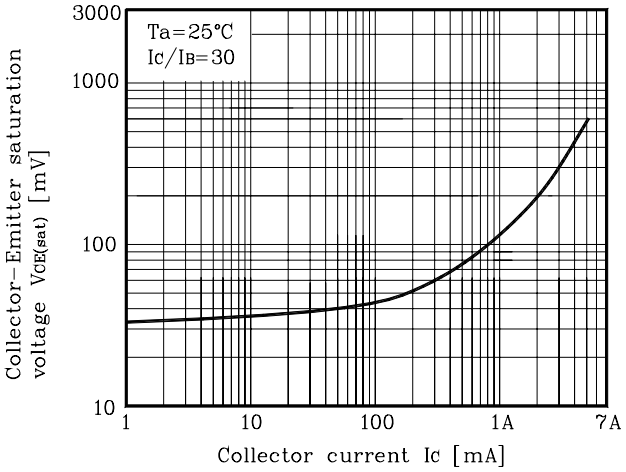


Fig. 4 f_T - I_C

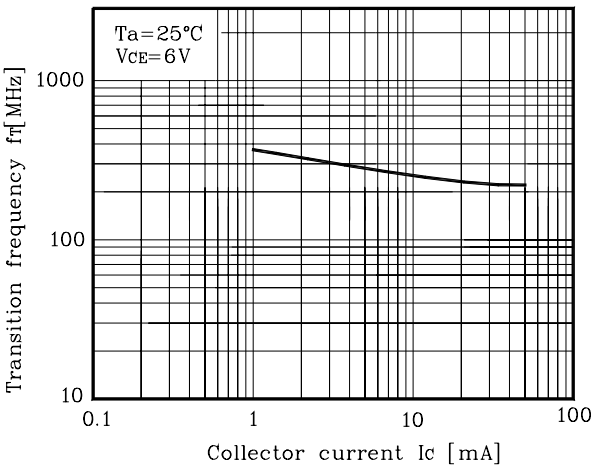


Fig. 5 C_{ob} - V_{CB}

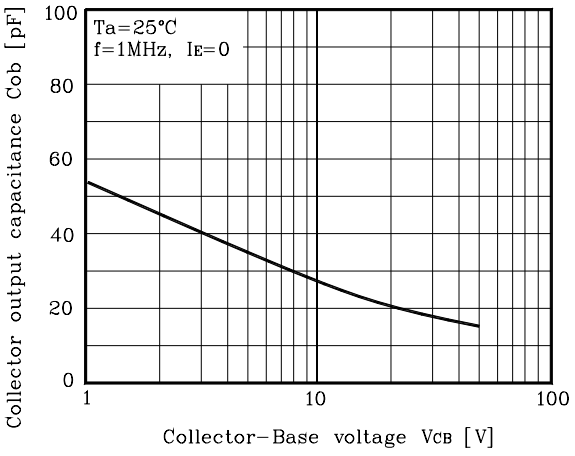
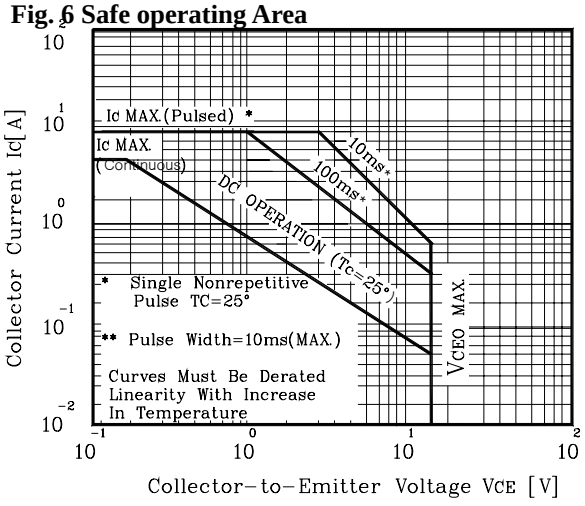
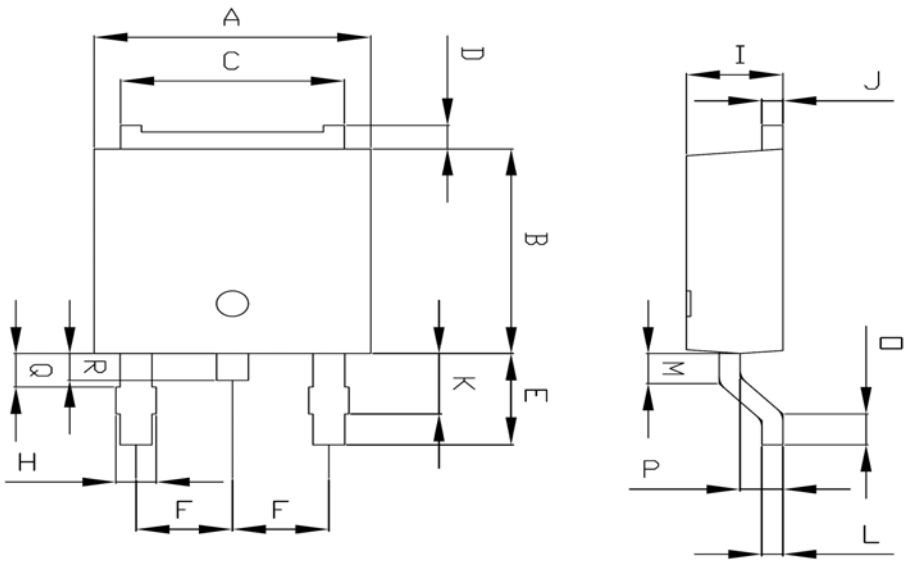


Fig. 6 Safe operating Area

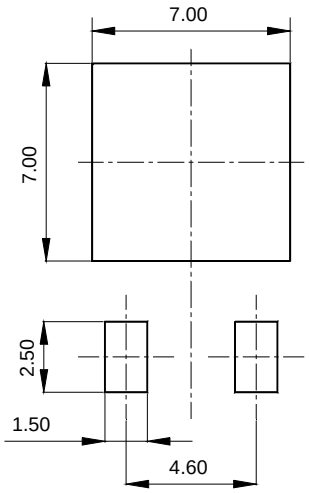


Outline Dimension



SYMBOL	MILLIMETERS			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A	6.40	6.60	6.80	
B	5.90	6.10	6.30	
C	5.04	5.34	5.64	
D	0.50	0.70	0.90	
E	2.50	2.70	2.90	
F	2.10	2.30	2.50	
H	0.96 MAX			
I	2.20	2.30	2.40	
J	0.40	0.50	0.60	
K	1.60	1.80	2.00	
L	0.40	0.50	0.60	
M	0.81	0.91	1.01	
O	0.80	0.90	1.00	
P	0.90	1.00	1.10	
Q	0.95 MAX			
R	0.60	0.80	1.00	

※Recommend PCB solder land [Unit: mm]



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