KODENSHI AUK

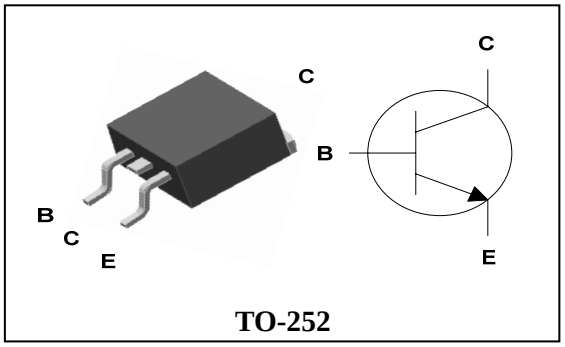
STC722D

NPN Silicon Transistor

Description

- General purpose amplifier
- Surface mount applications

PIN Connection



TO-252

Features

- P_C(Collector dissipation)=15W
- Low speed switching applications
- Complementary pair with STA723D

Ordering Information

Type NO.	Marking	Package Code
STC722D	STC722	TO-252

Absolute maximum ratings (Ta=25°C)

Characteristic	Symbol	Ratings	Unit
Collector-Base voltage	V_{CBO}	40	V
Collector-Emitter voltage	V_{CEO}	30	V
Emitter-Base voltage	V_{EBO}	5	V
Collector current	I_C	3	A(DC)
	I_{CP}	6	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	30	-	-	V
Emitter-Base breakdown voltage	BV_{EBO}	I_C=50μA, I_C=0	5	-	-	V
Collector cut-off current	I_{CBO}	V_{CB}=20V, I_E=0	-	-	1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=4V, I_C=0	-	-	1	μA
DC current gain	h_{FE}	V_{CE}=3V, I_C=500mA	80	-	390	-
		V_{CE}=3V, I_C=3A	10	-	-	
Collector-Emitter saturation voltage	$V_{CE(sat)}$	V_{CE}=2A, I_C= 200mA	-	0.5	0.8	V
Transition frequency	f_T	V_{CE}=5V, I_C=500mA, f=1MHz	-	120	-	MHz
Collector output capacitance	C_{ob}	V_{CB}=10V, I_E=0, f=1MHz	-	13	-	pF

* : h_{FE} rank / O : 80~218, Y : 120~270, G : 180~390

Electrical Characteristic Curves

Fig. 1 P_C - Ta

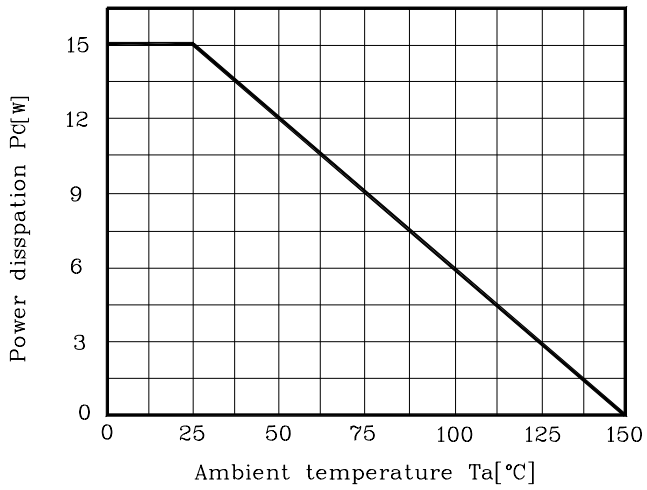


Fig. 2 h_{FE} - I_C

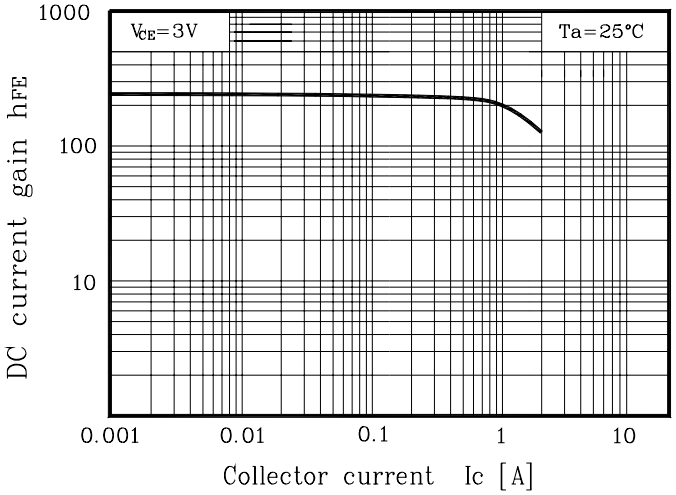


Fig. 3 $V_{CE(sat)}$ - I_C

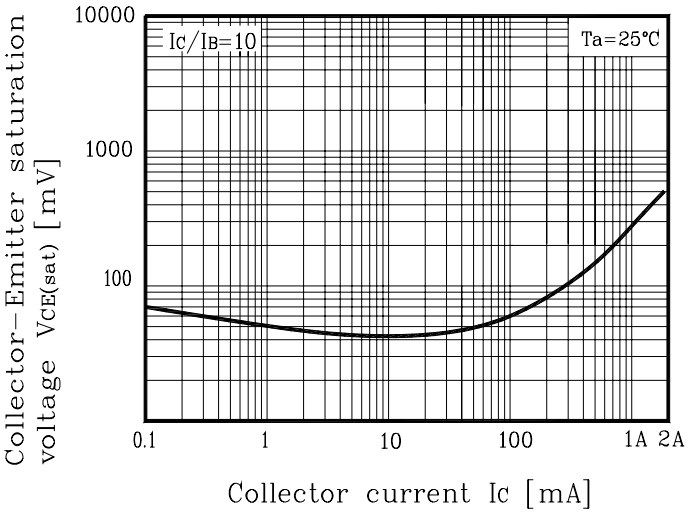


Fig. 4 f_T - I_C

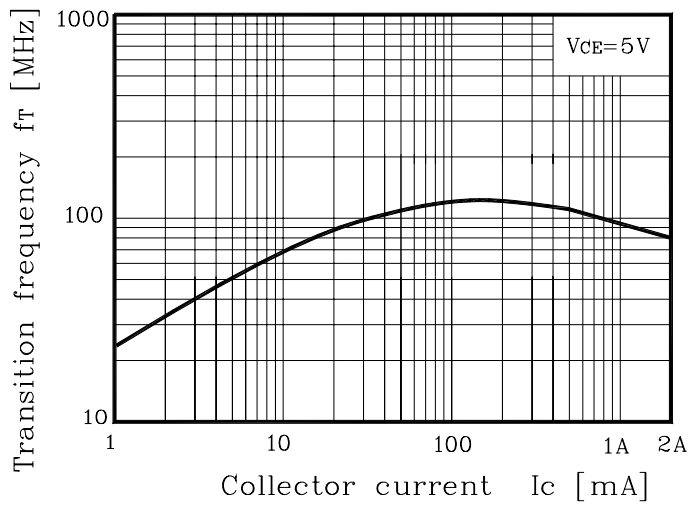
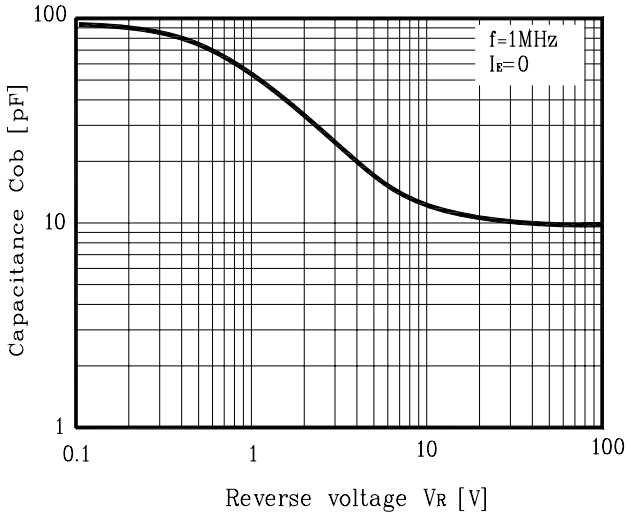
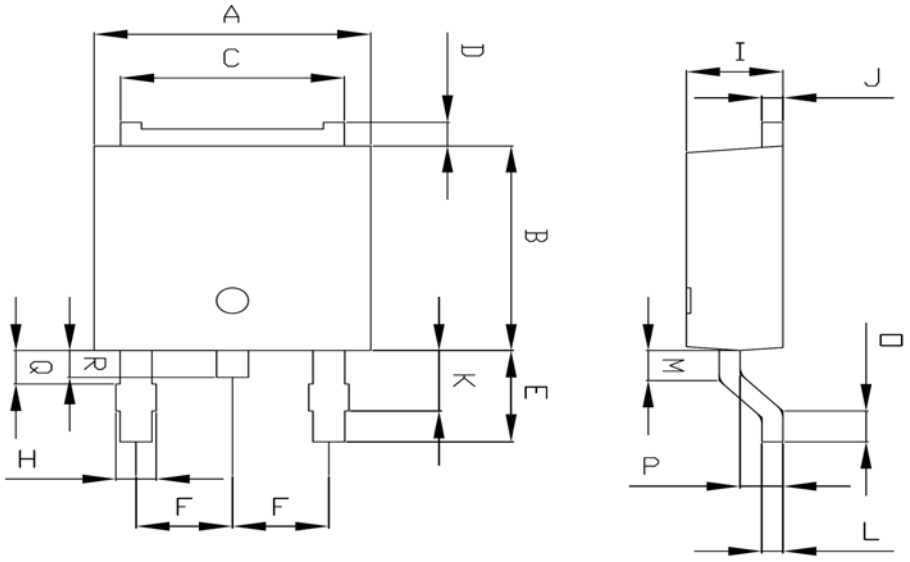


Fig. 5 C_{Ob} - V_R

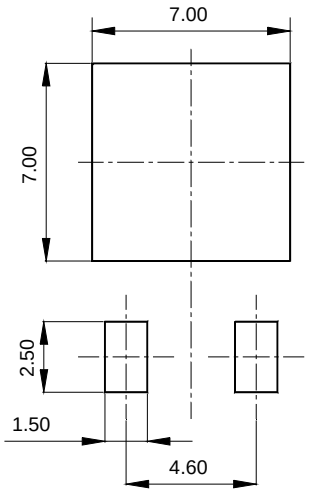


Outline Dimension



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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