AUK Semiconductor

STD361

NPN Silicon Transistor

Description

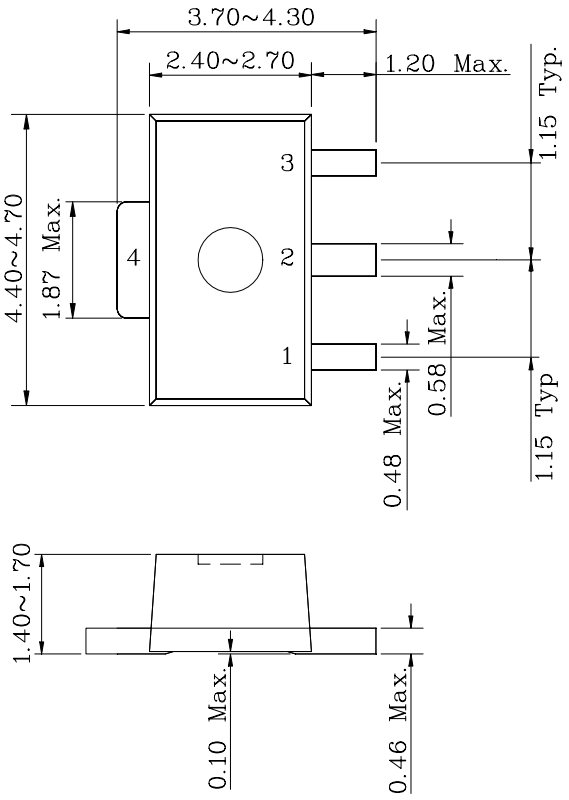
- Extremely low collector-to-emitter saturation voltage
  ($V_{CE(SAT)}$=0.2V Typ. @I_C/I_B=3A/150 ㎃)
- Suitable for low voltage large current drivers
- Switching Application

Ordering Information

Type NO.	Marking	Package Code
STD361	YA	SOT-89

Outline Dimensions

unit : mm



PIN Connections
1. Base
2. Collector
3. Emitter

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
Collector power dissipation	P_C	0.5	W
	P_C*	2	
Junction temperature	T_J	150	°C
Storage temperature	T_{stg}	-55~150	°C

* : When mounted on 40×40×0.8 ㎜ ceramic substate

Electrical Characteristics (Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base breakdown voltage	BV_{CBO}	I_C=50 ㎂, I_E=0	40	-	-	V
Collector-Emitter breakdown voltage	BV_{CEO}	I_C=1 ㎃, I_B=0	15	-	-	V
Emitter-Base breakdown voltage	BV_{EBO}	I_E=50 ㎂, I_C=0	7	-	-	V
Collector cut-off current	I_{CBO}	V_{CB}=30V, I_E=0	-	-	0.1	㎂
Emitter cut-off current	I_{EBO}	V_{EB}=5V, I_C=0	-	-	0.1	㎂
DC current gain	h_{FE1}	V_{CE}=2V, I_C=500 ㎃	160	-	320	-
	h_{FE2}	V_{CE}=2V, I_C=3A	40	-	-	-
Collector-Emitter saturation voltage	$V_{CE(sat)}$	I_C=3A, I_B=150 ㎃	-	-	0.3	V
Transition frequency	f_T	V_{CE}=6V, I_E=-50 ㎃	-	150	-	㎒
Collector output capacitance	C_{ob}	V_{CB}=20V, I_E=0, f=1 ㎒	-	-	50	pF

Electrical Characteristic Curves

Fig. 1 Pc - Ta

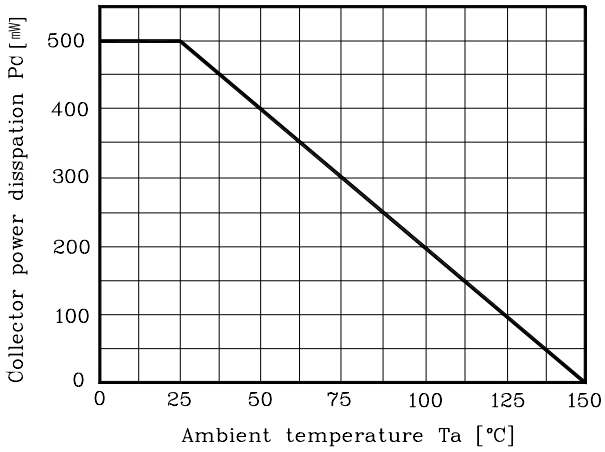


Fig. 2 h_{FE} - I_C

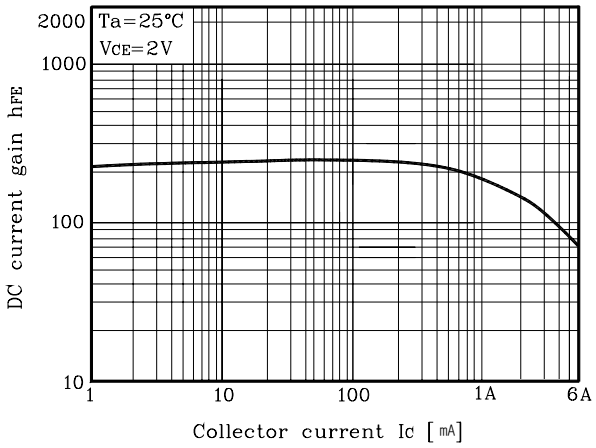


Fig. 3 $V_{CE(sat)}$ - I_C

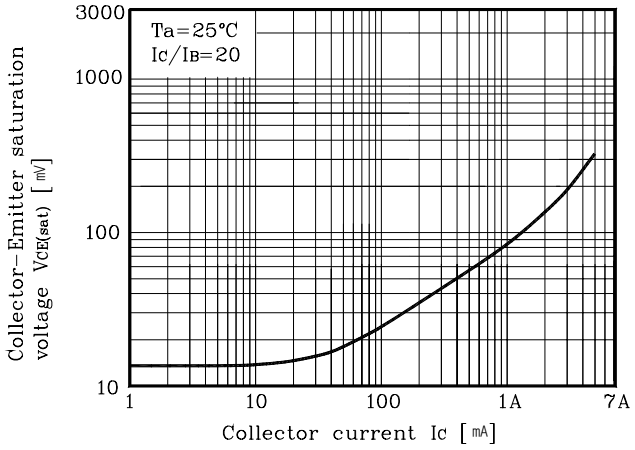


Fig. 4 f_T - I_C

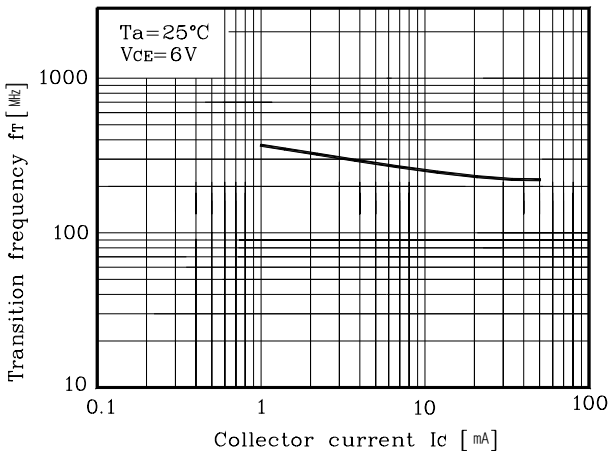
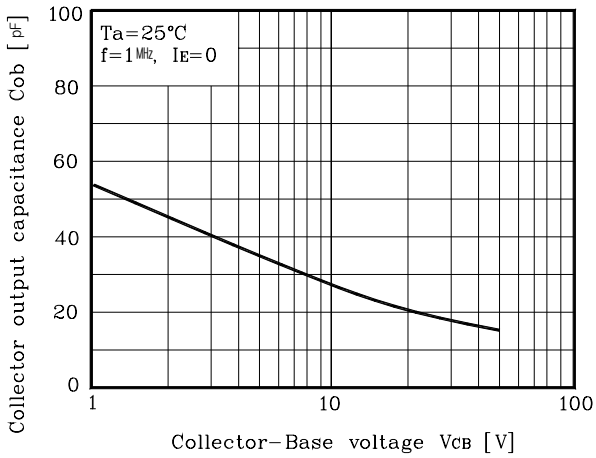


Fig. 5 C_{ob} - V_{CB}



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