

NPN Silicon Transistor

 $(Ta=25^{\circ}C)$

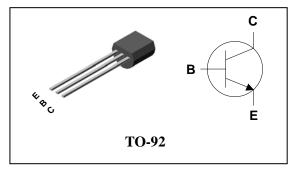
Descriptions

- General small signal amplifier
- Switching application

Features

- Low collector saturation voltage
- Collector output capacitance
- Complementary pair with STN3906

PIN Connection



Ordering Information

Type NO.	Marking	Package Code	
STN3904	STN3904	TO-92	

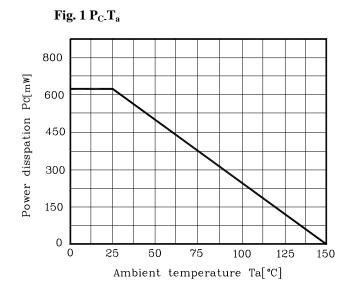
Absolute maximum ratings

	(10-20, 0)		
Characteristic	Symbol	Ratings	Unit
Collector-Base voltage	V _{CBO}	60	V
Collector-Emitter voltage	V _{CEO}	40	V
Emitter-Base voltage	V _{EBO}	6	V
Collector current	Ι _C	100	mA
Collector dissipation	Pc	625	mW
Junction temperature	Tj	150	°C
Storage temperature	T _{stg}	-55~150	°C

Electrical Characteristics

Electrical Characteristics					(Ta:	(Ta=25°C)	
Characteristic	Symbol	Test Condition	Min.	Тур.	Max.	Unit	
Collector-Base breakdown voltage	BV _{CBO}	$I_{C} = 10 \mu A$, $I_{E} = 0$	60	-	-	V	
Collector-Emitter breakdown voltage	BV_{CEO}	$I_{C}=1mA$, $I_{B}=0$	40	-	-	V	
Emitter-Base breakdown voltage	BV_{EBO}	$I_E = 10 \mu A$, $I_C = 0$	6	-	-	V	
Collector cut-off current	I _{CBO}	$V_{CB} = 60V, I_E = 0$	-	-	0.1	μΑ	
DC current gain	h_{FE}	V_{CE} =1V, I_{C} =10mA	100	-	300	-	
Collector-Emitter saturation voltage	V _{CE(sat)}	I_{C} =50mA, I_{B} =5mA	-	-	0.4	V	
Transition frequency	f _T	V_{CE} =20V, I_{C} =10mA	300	-	-	MHz	
Collector output capacitance	C _{ob}	V_{CE} =5V, I_{E} =0, f=1MHz	-	-	4	pF	

Electrical Characteristic Curves



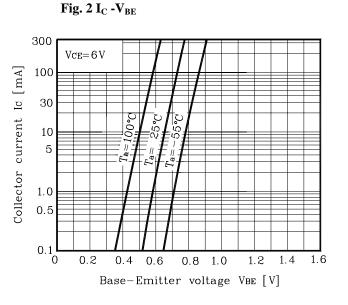


Fig. 3 I_C -V_{CE}

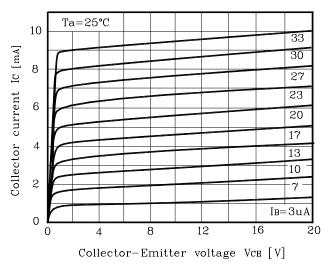


Fig. 5 $V_{CE(sat)}$ - I_C

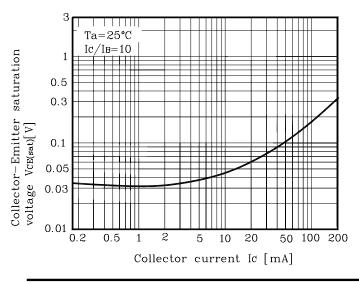
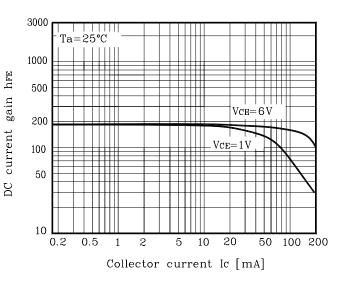
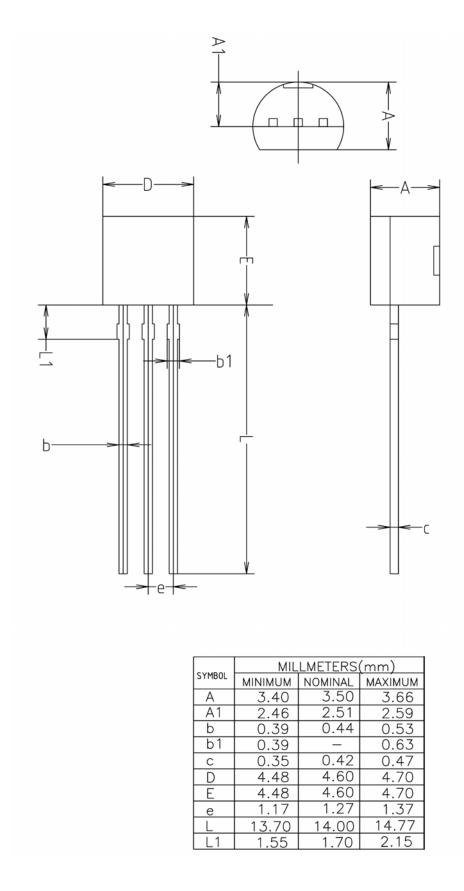


Fig. 4 h_{FE} - I_C



Outline Dimension



The AUK Corp. products are intended for the use as components in general electronic equipment (Office and communication equipment, measuring equipment, home appliance, etc.).

Please make sure that you consult with us before you use these AUK Corp. products in equipments which require high quality and / or reliability, and in equipments which could have major impact to the welfare of human life(atomic energy control, airplane, spaceship, transportation, combustion control, all types of safety device, etc.). AUK Corp. cannot accept liability to any damage which may occur in case these AUK Corp. products were used in the mentioned equipments without prior consultation with AUK Corp..

Specifications mentioned in this publication are subject to change without notice.