



**NPN Silicon Transistor** 

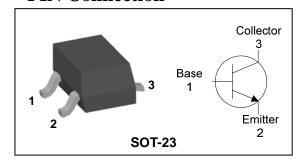
## **Descriptions**

- High current application
- Switching application

#### **Features**

- Suitable for AF-Driver stage and low power output stages
- Complementary pair with BC808

#### **PIN Connection**



# **Ordering Information**

Type NO.	Marking	Package Code
BC818	<u>PA</u> □ □ ① ② ③	SOT-23
	0 - 1 - 1 0 1 - 1 1 0 1 1 1 1 1 1 1 1 1	

1 Device Code 2 hFE Rank 3 Year&Week Code

## **Absolute maximum ratings**

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

Characteristic	Symbol	Ratings	Unit
Collector-Base voltage	$V_{CBO}$	30	V
Collector-Emitter voltage	$V_{\sf CEO}$	25	V
Emitter-Base voltage	$V_{EBO}$	5	V
Collector current	I <sub>C</sub>	800	mA
Collector dissipation	P <sub>C</sub>	200	mW
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	$T_{stg}$	-55~150	°C

#### **Electrical Characteristics**

(Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Тур.	Max.	Unit
Collector-Emitter breakdown voltage	BV <sub>CEO</sub>	$I_C=1$ mA, $I_B=0$	25	-	-	V
Base-Emitter turn on voltage	V <sub>BE(ON)</sub>	V <sub>CE</sub> =1V, I <sub>C</sub> =300mA	-	-	1.2	V
Collector-Emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =500mA, I <sub>B</sub> =50mA	-	-	700	mV
Collector cut-off current	I <sub>CBO</sub>	$V_{CB} = 30V, I_{E} = 0$	-	-	100	nA
DC current gain	h <sub>FE</sub> *	$V_{CE} = 1V$ , $I_{C} = 100 \text{mA}$	100	ı	630	-
Transition frequency	f <sub>T</sub>	$V_{CB}=5V$ , $I_{C}=10mA$	-	100	-	MHz
Collector output capacitance	C <sub>ob</sub>	$V_{CB}=10V$ , $I_{E}=0$ , $f=1MHz$	-	16	-	pF

<sup>\*:</sup>  $h_{FE}$  rank / 16(A): 100 ~ 250, 25(B): 160 ~ 400, 40(C): 250 ~ 630

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## **Electrical Characteristic Curves**

Fig. 1  $P_C$  -  $T_a$ 

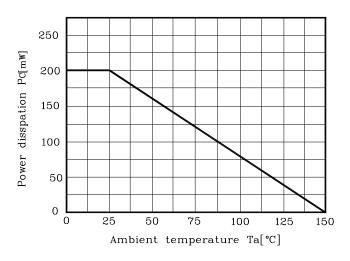


Fig. 3  $I_{\rm C}~$  -  $V_{\rm CE}$ 

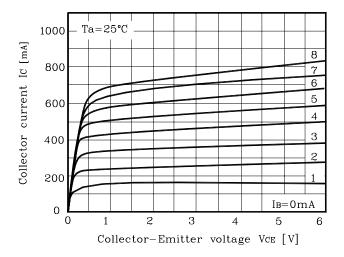


Fig. 5  $h_{FE}$  -  $I_C$ 

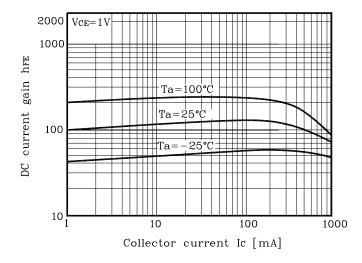


Fig. 2  $I_C$  -  $V_{BE}$ 

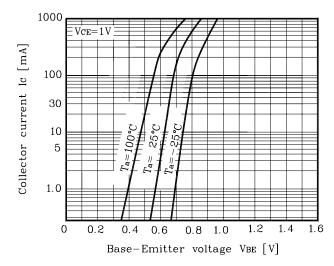
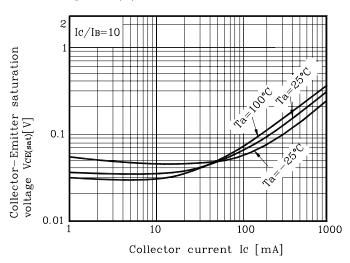
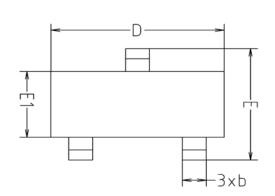
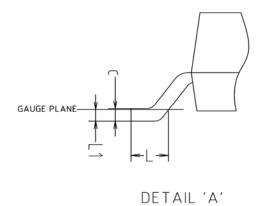


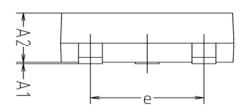
Fig. 4  $V_{CE(sat)}$  -  $I_C$ 



# **Outline Dimension**



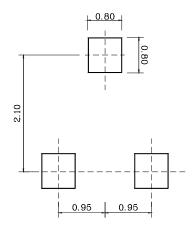






SYMBOL	MILLIMETERS			NOTE
3111000	MINIMUM	NOMINAL	MAXIMUM	11012
A1	0.00	-	0.10	
A2	0.82	-	1.02	
Ь	0.39	0.42	0.45	
С	0.09	0.12	0.15	
D	2.80	2.90	3.00	
Е	2.20	2.40	2.60	
E1	1.20	1.30	1.40	
е	1.90BSC			
L	0.20	-	-	
L1	0.12BSC			

## \*Recommend PCB solder land [Unit: mm]



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