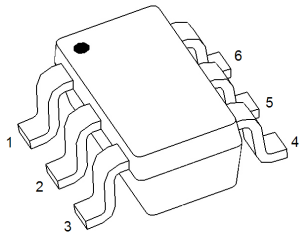
SOT-23-6L Plastic-Encapsulate Transistors

BC818A TRANSISTOR (PNP)

DESCRIPTIONS

The device is manfactured in low voltage PNP Planar Technology with "Base Island " layout. The resulting Transistor shows exceptional high gain performance coupled .

SOT-23-6L

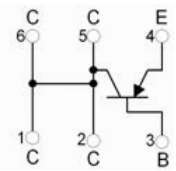


APPLICATIONS

- Power management in portable equipments
- Switching regulator in battery charge applications

MARKING:

Equivalent Circuit



MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-30	V
V_{CEO}	Collector-Emitter Voltage	-25	V
V_{EBO}	Emitter-Base Voltage	-8	V
I_C	Collector Current -Continuous	-1.5	A
P_C	Collector Dissipation	0.35	W
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	357	℃/W
P_{tot}	Total Dissipation at T_C = 25℃	1.2	W
$R_{\theta JC}$	Thermal Resistance from Junction to case (note 1)	104.2	℃/W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~+150	℃

Note 1：Package mounted on FR4 pcb 25mm x 25mm.

ELECTRICAL CHARACTERISTICS

T_a=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-50μA,I_E=0	-30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$*	I_C=-1mA,I_B=0	-25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-10μA ,I_C=0	-8			V
Collector cut-off current	I_{CBO}	V_{CB}=-30V,I_E=0			-0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=-6V,I_C=0			-0.1	μA
DC current gain	h_{FE}*	V_{CE}=-0.8V, I_C=-100mA	160		350	
		V_{CE}=-1.8V, I_C=-500mA	100		360	
Collector-emitter saturation voltage	$V_{CE(sat)}$*	I_C=-1.5A,I_B=-50mA			-0.5	V

*Pulse test: Pulse width≤300us,duty cycle≤2.0%.

Typical Characteristics

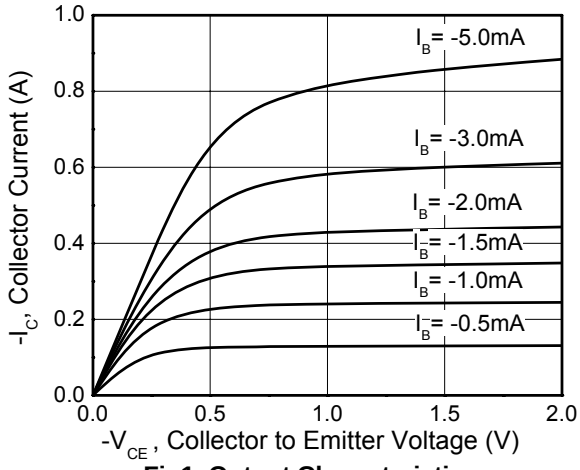


Fig1. Output Characteristics

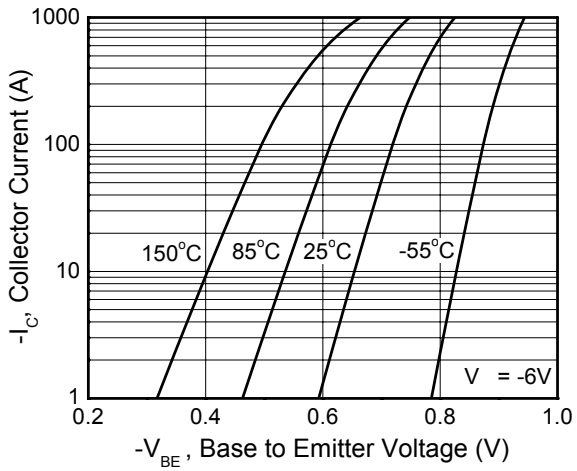


Fig2. Propagation Characteristics

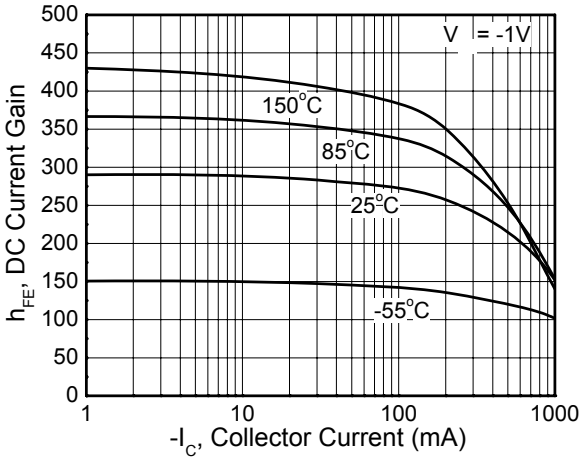


Fig3a. DC Gain vs. Collector Current(a)

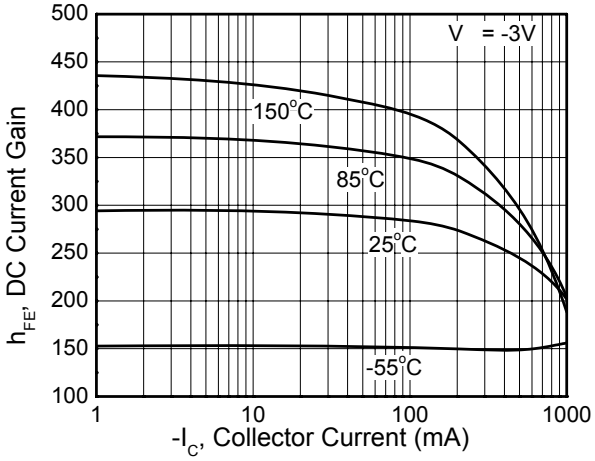


Fig3b. DC Gain vs. Collector Current(b)

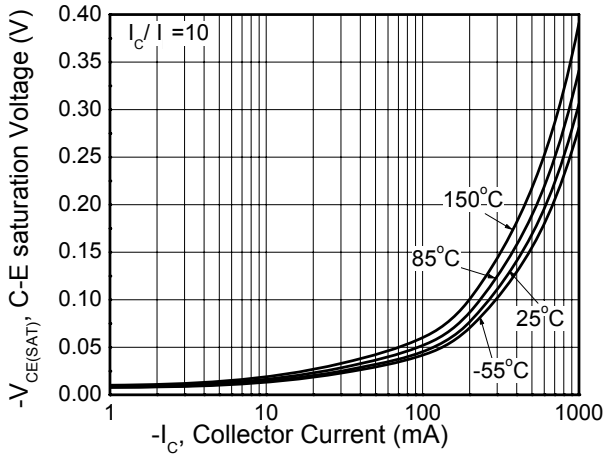


Fig4. C-E saturation Voltage vs. Collector Current

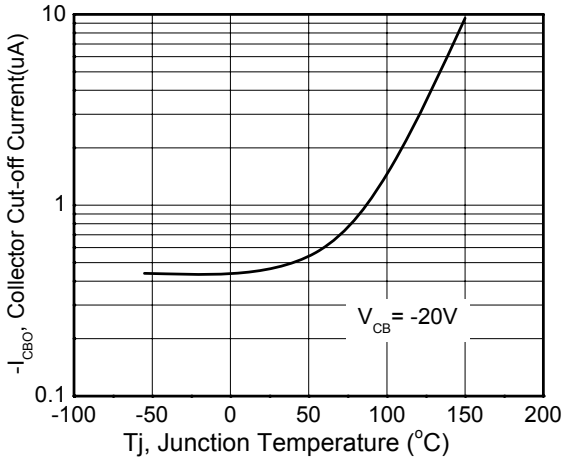


Fig5. Cut-off Current vs. Temperature