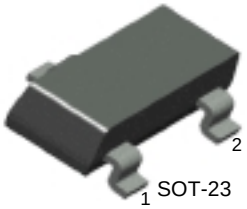
FAIRCHILD
SEMICONDUCTOR TM

BC817/BC818

Switching and Amplifier Applications

- Suitable for AF-Driver stages and low power output stages
- Complement to BC807/BC808



SOT-23

1. Base 2. Emitter 3. Collector

NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings T_a=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CES}	Collector Emitter Voltage		
	: BC817	50	V
	: BC818	30	V
V_{CEO}	Collector Emitter Voltage		
	: BC817	45	V
	: BC818	25	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current (DC)	800	mA
P_C	Collector Dissipation	310	mW
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	-65 ~ 150	°C

Electrical Characteristics T_a=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CEO}	Collector-Emitter Breakdown Voltage	I_C=10mA, I_B=0				
	: BC817		45			V
	: BC818		25			V
BV_{CES}	Collector-Emitter Breakdown Voltage	I_C=0.1mA, V_{BE}=0				
	: BC817		50			V
	: BC818		30			V
BV_{EBO}	Emitter-Base Breakdown Voltage	I_E=0.1mA, I_C=0	5			V
I_{CES}	Collector Cut-off Current	V_{CE}=25V, V_{BE}=0			100	nA
I_{EBO}	Emitter Cut-off Current	V_{EB}=4V, I_C=0			100	nA
h_{FE1}	DC Current Gain	V_{CE}=1V, I_C=100mA	100		630	
h_{FE2}		V_{CE}=1V, I_C=300mA	60			
V_{CE} (sat)	Collector-Emitter Saturation Voltage	I_C=500mA, I_B=50mA			0.7	V
V_{BE} (on)	Base-Emitter On Voltage	V_{CE}=1V, I_C=300mA			1.2	V
f_T	Current Gain Bandwidth Product	V_{CE}=5V, I_C=10mA f=50MHz		100		MHz
C_{ob}	Output Capacitance	V_{CB}=10V, f=1MHz			12	pF

h_{FE} Classification

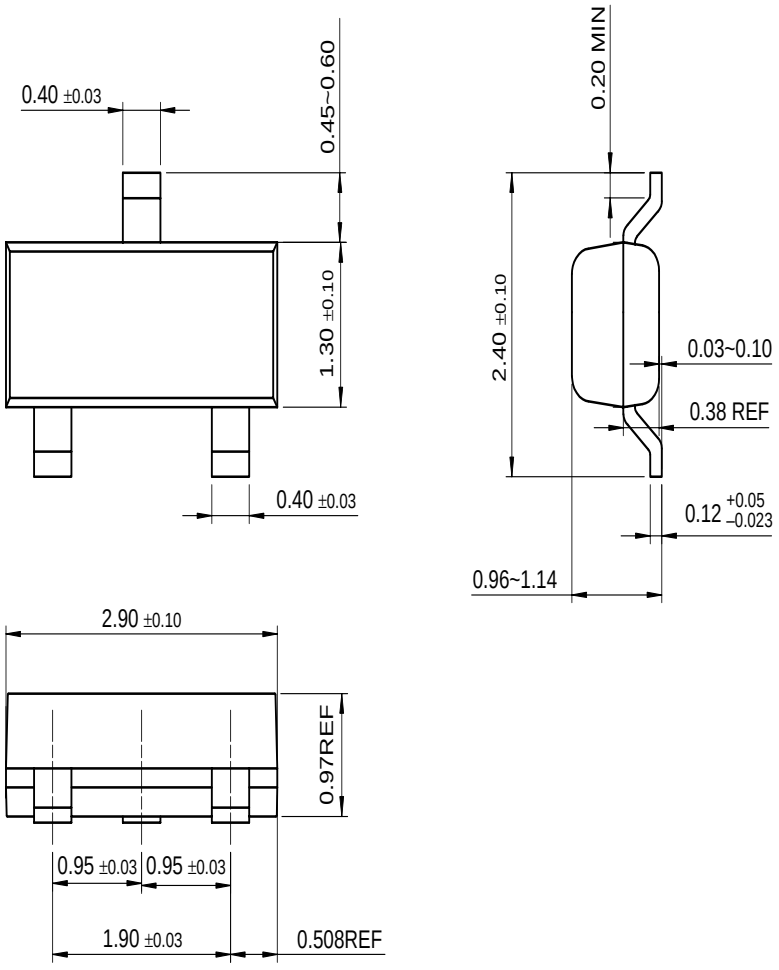
Classification	16	25	40
h_{FE1}	100 ~ 250	160 ~ 400	250 ~ 630
h_{FE2}	60 ~	100 ~	170 ~

Marking Code

Type	817-16	817-25	817-40	818-16	818-25	818-40
Marking	8FA	8FB	8FC	8GA	8GB	8GC

Package Demensions

SOT-23



Dimensions in Millimeters

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