

BC817/BC818

NPN EPITAXIAL SILICON TRANSISTOR

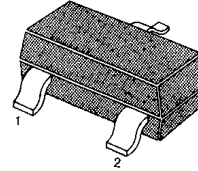
SWITCHING AND AMPLIFIER APPLICATIONS

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

ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$)

Characteristic	Symbol	Rating	Unit
Collector-Emitter Voltage :BC817	V_{CES}	50	V
:BC818		30	V
Collector-Emitter Voltage :BC817	V_{CEO}	45	V
:BC818		25	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current (DC)	I_C	800	mA
Collector Dissipation	P_C	310	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-65 ~ 150	$^\circ\text{C}$

SOT-23



1. Base 2. Emitter 3. Collector

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$)

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