

# BC817/BC818

# NPN EPITAXIAL SILICON TRANSISTOR

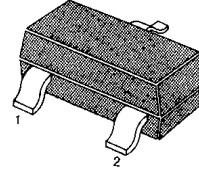
## SWITCHING AND AMPLIFIER APPLICATIONS

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

## ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C)

Characteristic	Symbol	Rating	Unit
Collector Emitter Voltage : BC817	V <sub>CE</sub>	50	V
: BC818		30	V
Collector Emitter Voltage : BC817	V <sub>CEO</sub>	45	V
: BC818		25	V
Emitter-Base Voltage	V <sub>EBO</sub>	5	V
Collector Current (DC)	I <sub>C</sub>	800	mA
Collector Dissipation	P <sub>C</sub>	310	mW
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature	T <sub>STG</sub>	-65 ~ 150	°C

SOT-23



1. Base 2. Emitter 3. Collector

## ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Emitter Breakdown Voltage : BC817	BV <sub>CEO</sub>	I <sub>C</sub> =10mA, I <sub>B</sub> =0	45			V
: BC818			25			V
Collector-Emitter Breakdown Voltage : BC817	BV <sub>CES</sub>	I <sub>C</sub> =0.1mA, I <sub>B</sub> =0	50			V
: BC818			30			V
Emitter-Base Breakdown Voltage	BV <sub>EBO</sub>	I <sub>E</sub> =0.1mA, I <sub>C</sub> =0	5			V
Collector Cut-off Current	I <sub>CES</sub>	V <sub>CE</sub> =25V, I <sub>B</sub> =0			100	nA
Emitter Cut-off Current	I <sub>EBO</sub>	V <sub>EB</sub> =4V, I <sub>C</sub> =0			100	nA
DC Current Gain	h <sub>FE1</sub>	V <sub>CE</sub> =1V, I <sub>C</sub> =100mA	100		630	
	h <sub>FE2</sub>	V <sub>CE</sub> =1V, I <sub>C</sub> =300mA	60			
Collector-Emitter Saturation Voltage	V <sub>CE (sat)</sub>	I <sub>C</sub> =500mA, I <sub>B</sub> =50mA			0.7	V
Base-Emitter On Voltage	V <sub>BE (on)</sub>	V <sub>CE</sub> =1V, I <sub>C</sub> =300mA			1.2	V
Current Gain Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> =5V, I <sub>C</sub> =10mA f=50MHz		100		MHz
Collector-Base Capacitance	C <sub>CB0</sub>	V <sub>CB</sub> =10V, f=1MHz			12	pF

## h<sub>FE</sub> CLASSIFICATION

Classification	16	25	40
h <sub>FE1</sub>	100-250	160-400	250-630
h <sub>FE2</sub>	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

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