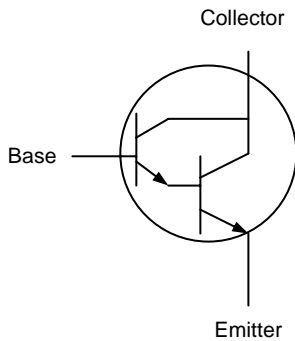


# BC517

## NPN Silicon Darlington Transistor



1. Collector 2. Base 3. Emitter

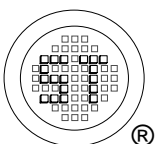
TO-92 Plastic Package  
Weight approx. 0.19g

### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Collector Base Voltage	$V_{CBO}$	40	V
Collector Emitter Voltage	$V_{CES}$	30	V
Emitter Base Voltage	$V_{EBO}$	10	V
Collector Current	$I_C$	500	mA
Total Power Dissipation	$P_{tot}$	625	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_S$	- 55 to + 150	$^\circ\text{C}$

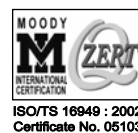
### Characteristics ( $T_a = 25\text{ }^\circ\text{C}$ )

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $V_{CE} = 2\text{ V}$ , $I_C = 20\text{ mA}$	$h_{FE}$	30,000	-	-	-
Collector Saturation Voltage at $I_C = 100\text{ mA}$ , $I_B = 0.1\text{ mA}$	$V_{CEsat}$	-	-	1	V
Base Emitter On Voltage at $V_{CE} = 5\text{ V}$ , $I_C = 10\text{ mA}$	$V_{BE(on)}$	-	-	1.4	V
Collector Base Breakdown Voltage at $I_C = 100\text{ }\mu\text{A}$	$V_{(BR)CBO}$	40	-	-	V
Collector Emitter Breakdown Voltage at $I_C = 2\text{ mA}$	$V_{(BR)CES}$	30	-	-	V
Emitter Base Breakdown Voltage at $I_E = 100\text{ }\mu\text{A}$	$V_{(BR)EBO}$	10	-	-	V
Collector Cutoff Current at $V_{CE} = 30\text{ V}$	$I_{CES}$	-	-	500	nA
Collector Cutoff Current at $V_{CB} = 30\text{ V}$	$I_{CBO}$	-	-	100	nA
Emitter Cutoff Current at $V_{EB} = 10\text{ V}$	$I_{EBO}$	-	-	100	nA
Current-Gain-Bandwidth Product at $V_{CE} = 5\text{ V}$ , $I_C = 10\text{ mA}$ , $f = 100\text{ MHz}$	$f_T$	-	200	-	MHz



**SEMTECH ELECTRONICS LTD.**

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