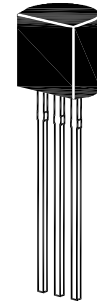
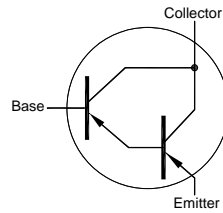


BC516

PNP Silicon Darlington Transistor



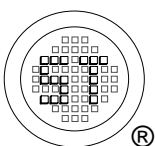
1. Collector 2. Base 3. Emitter
TO-92 Plastic Package

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	40	V
Collector Emitter Voltage	$-V_{CEO}$	30	V
Emitter Base Voltage	$-V_{EBO}$	10	V
Collector Current (DC)	$-I_C$	500	mA
Peak Collector Current	$-I_{CM}$	800	mA
Total Power Dissipation	P_{tot}	500	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_s	- 55 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain at $-V_{CE} = 2\text{ V}$, $-I_C = 20\text{ mA}$	h_{FE}	30000	-	-
Collector Base Cutoff Current at $-V_{CB} = 30\text{ V}$	$-I_{CBO}$	-	100	nA
Emitter Base Cutoff Current at $-V_{EB} = 10\text{ V}$	$-I_{EBO}$	-	100	nA
Collector Base Breakdown Voltage at $-I_C = 100\text{ }\mu\text{A}$	$-V_{(BR)CBO}$	40	-	V
Collector Emitter Breakdown Voltage at $-I_C = 1\text{ mA}$	$-V_{(BR)CEO}$	30	-	V
Emitter Base Breakdown Voltage at $-I_E = 10\text{ }\mu\text{A}$	$-V_{(BR)EBO}$	10	-	V
Collector Emitter Saturation Voltage at $-I_C = 100\text{ mA}$, $-I_B = 0.1\text{ mA}$	$-V_{CE(sat)}$	-	1	V
Base Emitter Saturation Voltage at $-I_C = 100\text{ mA}$, $-I_B = 0.1\text{ mA}$	$-V_{BE(sat)}$	-	1.5	V
Base Emitter On Voltage at $-V_{CE} = 5\text{ V}$, $-I_C = 10\text{ mA}$	$-V_{BE(on)}$	-	1.4	V
Transition Frequency at $-V_{CE} = 5\text{ V}$, $-I_C = 10\text{ mA}$	f_T	125	-	MHz



SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001:2004
Certificate No. 7116



ISO 9001:2000
Certificate No. 0506098

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