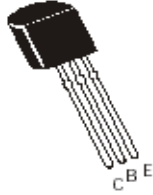


## PNP SILICON DARLINGTON TRANSISTOR



**BC516**  
**TO-92**  
**Plastic Package**

For Lead Free Parts, Device Part # will be Prefixed with "T"

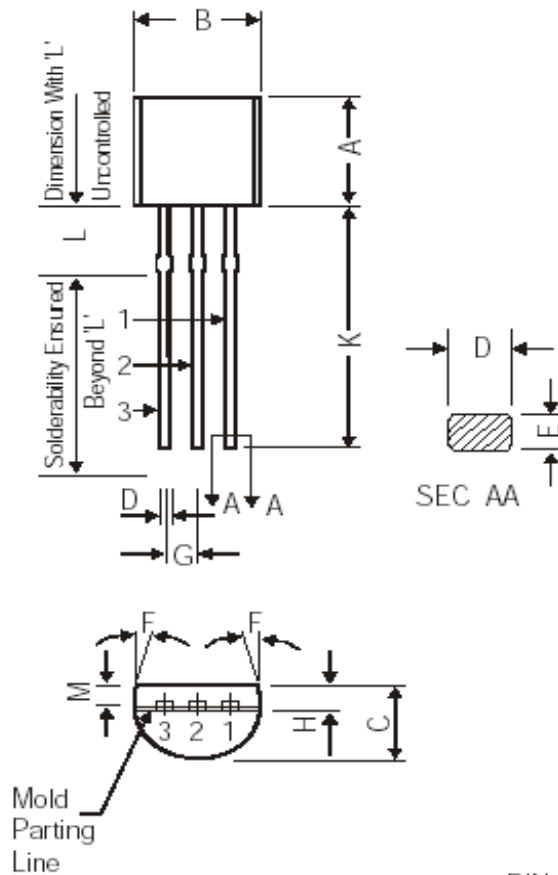
### ABSOLUTE MAXIMUM RATINGS ( $T_a=25^\circ\text{C}$ )

DESCRIPTION	SYMBOL	VALUE	UNITS
Collector Emitter Voltage	$V_{CEO}$	30	V
Collector Base Voltage	$V_{CBO}$	40	V
Emitter Base Voltage	$V_{EBO}$	10	V
Collector Current Continuous	$I_C$	500	mA
Peak Collector Current	$I_{CM}$	800	mA
Total Power Dissipation	$P_D$	500	mW
Operating And Storage Junction Temperature Range	$T_j, T_{stg}$	150, - 55 to +150	$^\circ\text{C}$

### ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$ unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNITS
Collector Emitter Voltage	$V_{CEO}$	$I_C=1\text{mA}, I_B=0$	30		V
Collector Base Voltage	$V_{CBO}$	$I_C=100\mu\text{A}, I_E=0$	40		V
Emitter Base Voltage	$V_{EBO}$	$I_E=10\mu\text{A}, I_C=0$	10		V
Collector Base Cut off Current	$I_{CBO}$	$V_{CB}=30\text{V}, I_E=0$		100	nA
Emitter Base Cut Off Current	$I_{EBO}$	$V_{EB}=10\text{V}, I_C=0$		100	nA
DC Current Gain	$h_{FE}$	$I_C=20\text{mA}, V_{CE}=2\text{V}$	30000		
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=100\text{mA}, I_B=0.1\text{mA}$		1	V
Base Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=100\text{mA}, I_B=5\text{mA}$		1.5	V
Base Emitter On Voltage	$V_{BE(on)}$	$I_C=10\text{mA}, V_{CE}=5\text{V}$		1.4	V
Transition Frequency	$f_T$	$V_{CE}=5\text{V}, I_C=10\text{mA}$	125		MHz

### TO-92 Plastic Package

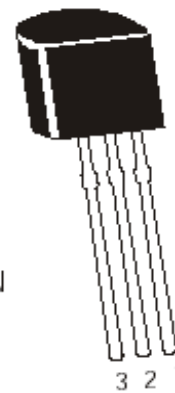


DIM	MIN.	MAX.
A	4.32	5.33
B	4.45	5.20
C	3.18	4.19
D	0.41	0.55
E	0.35	0.50
F	5 DEG	
G	1.14	1.40
H	1.20	1.40
K	12.70	—
L	1.982	2.082
M	1.03	1.20

All dimensions are in mm

#### PIN CONFIGURATION

1. EMITTER
2. BASE
3. COLLECTOR





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## Disclaimer

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BC516 Rev\_0\_050913E