Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

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We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!


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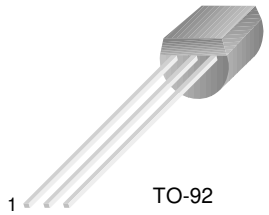
FAIRCHILD
SEMICONDUCTOR®

# BC184LC

## Silicon NPN Small Signal Transistor (Note 1)

- $BV_{CEO}$ = 30V (Min.)
- $h_{FE}$ = 250 (Min.) @$V_{CE}$ = 5.0V, $I_C$ = 2mA




TO-92

1. Emitter 2. Collector 3. Base

## Absolute Maximum Ratings $T_C$=25°C unless otherwise noted

| Symbol | Parameter | Value | Units |
|---|---|---|---|
| $V_{CBO}$ | Collector-Base Voltage | 45 | V |
| $V_{CEO}$ | Collector-Emitter Voltage | 30 | V |
| $V_{EBO}$ | Emitter-Base Voltage | 5 | V |
| $I_C$ | Collector Current (DC) | 200 | mA |
| $P_C$ | Collector Dissipation ($T_a$=25°C) (Note 2, 3) | 625 | mW |
| $T_J$ | Junction Temperature | 150 | °C |
| $T_{STG}$ | Storage Temperature | - 55 ~ 150 | °C |

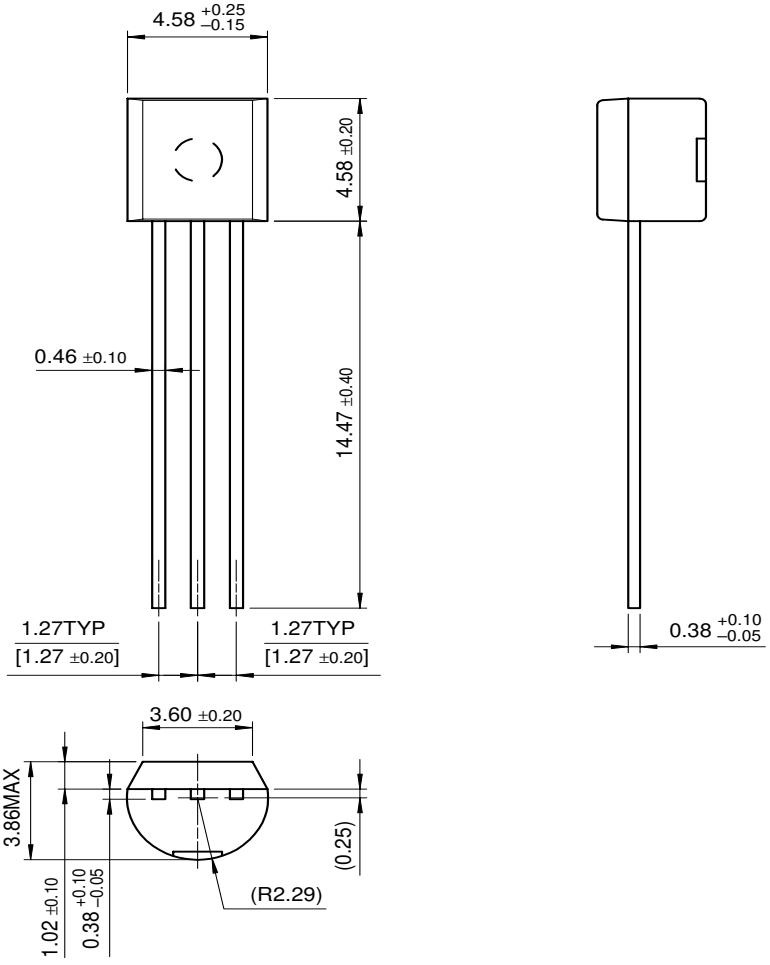
## Electrical Characteristics $T_C$=25°C unless otherwise noted

| Symbol | Parameter | Test Condition | Min. | Typ. | Max. | Units |
|---|---|---|---|---|---|---|
| $BV_{CBO}$ | Collector-Base Voltage | $I_C$ = 10μA | 45 | | | V |
| $BV_{CEO}$ | Collector-Emitter Voltage | $I_C$ = 2mA | 30 | | | V |
| $BV_{EBO}$ | Emitter-Base Voltage | $I_E$ = 10μA | 5 | | | V |
| $I_{CBO}$ | Collector Cut-off Current | $V_{CB}$ = 30V | | | 15 | nA |
| $I_{EBO}$ | Emitter Cut-off Current | $V_{EB}$ = 3V | | | 15 | nA |
| $h_{FE}$ | DC Current Gain | $V_{CE}$ = 5V, $I_C$ = 10μA<br>$V_{CE}$ = 5V, $I_C$ = 2mA<br>$V_{CE}$ = 5V, $I_C$ = 100mA | 100<br>250<br>130 | | | |
| $V_{CE}$(sat) | Collector-Emitter Saturation Voltage | $I_C$ = 10mA, $I_B$ = 0.5mA<br>$I_C$ = 100mA, $I_B$ = 5mA | | | 0.25<br>0.6 | V |
| $V_{BE}$(sat) | Base-Emitter Saturation Voltage | $I_C$ = 100mA, $I_B$ = 5mA | | | 1.2 | V |
| $V_{BE}$(on) | Base-Emitter On Voltage | $V_{CE}$ = 5V, $I_C$ = 2mA | 0.55 | | 0.7 | V |
| $C_{OB}$ | Output Capacitance | $V_{CE}$ = 10V, f = 1MHz | | | 5 | pF |
| $f_T$ | Current gain Bandwidth Product | $V_{CE}$ = 5V, $I_C$ = 10mA<br>f = 100MHz | 150 | | | MHz |
| $h_{FE}$ | Small Signal Current Gain | $V_{CE}$ = 5V, $I_C$ = 2mA<br>f = 1KHz | 450 | | 900 | |
| NF | Noise Figure | $V_{CE}$ = 5V, $I_C$ = 200mA<br>$R_G$ = 2KΩ, f = 1KHz | | | 4 | dB |

**Notes:**
1. These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.
2. These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.
3. These ratings are based on a maximum junction temperature of 150degrees C.

## Package Dimensions

TO-92




Dimensions in Millimeters

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| CoolFET™ | FASTr™ | MicroFET™ | PowerTrench® | SuperSOT™-6 |
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## PRODUCT STATUS DEFINITIONS

### Definition of Terms

| Datasheet Identification | Product Status | Definition |
|---|---|---|
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