



FUKUCOM COMPANY LTD.

福 靈 有 限 公 司

FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,  
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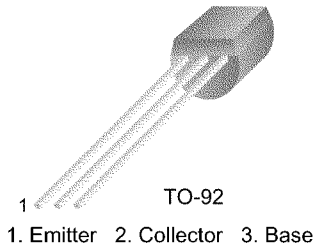
BC184L

**FAIRCHILD**  
SEMICONDUCTOR®

## BC184L

### Silicon NPN Small Signal Transistor (Note 1)

- $V_{CE0} = 30V$  (Min.)
- $h_{FE} = 130$  (Min.) @  $V_{CE} = 5.0V, I_C = 100mA$



### Absolute Maximum Ratings $T_C=25^\circ C$ 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)	500	mA
$P_C$	Collector Dissipation ( $T_a=25^\circ C$ ) (Note 2, 3)	350	mW
$T_J$	Junction Temperature	150	$^\circ C$
$T_{STG}$	Storage Temperature	- 55 ~ 150	$^\circ C$

### Electrical Characteristics $T_C=25^\circ C$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
$V_{CBO}$	Collector-Base Voltage	$I_C = 10\mu A$	45			V
$V_{CEO}$	Collector-Emitter Voltage	$I_C = 2mA$	30			V
$V_{EBO}$	Emitter-Base Voltage	$I_E = 10\mu A$	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	$V_{CE} = 5V, I_C = 10\mu A$ $V_{CE} = 5V, I_C = 100mA$	100 130			
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 10mA, I_B = 0.5mA$ $I_C = 100mA, I_B = 5mA$			0.6 0.25	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	$V_{CE} = 5V, I_C = 10mA$ $f = 100MHz$	150			MHz
$h_{FE}$	Small Signal Current Gain	$V_{CE} = 5V, I_C = 2mA$ $f = 1KHz$	450		900	
NF	Noise Figure	$V_{CE} = 5V, I_C = 200mA$ $R_G = 2K\Omega, f = 1KHz$			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.



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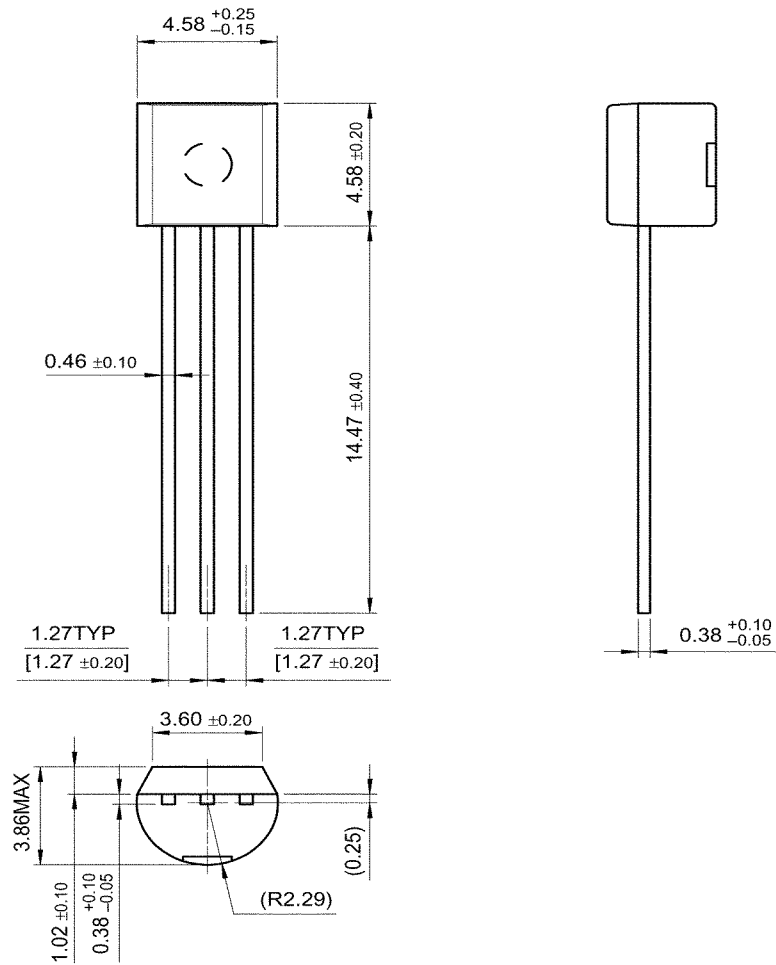
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### Package Dimensions

### TO-92



Dimensions in Millimeters