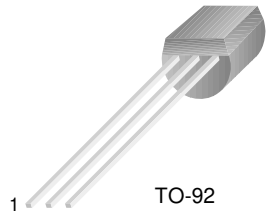
FAIRCHILD
SEMICONDUCTOR®

BC182L

NPN General Purpose Amplifier

- This device is designed for general purpose amplifier application at collector currents to 100mA.
- Sourced from process 10.



TO-92

1. Emitter 2. Collector 3. Base

Absolute Maximum Ratings T_C=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CEO}	Collector-Emitter Voltage	50	V
V_{CBO}	Collector-Base Voltage	60	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current - Continuous	100	mA
T_J, T_{STG}	Storage Junction Temperature Range	- 55 ~ 150	°C

Electrical Characteristics T_C=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
Off Characteristics						
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C = 2mA, I_B = 0	50			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C = 10μA, I_E = 0	60			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E = 100μA, I_C = 0	6			V
I_{CBO}	Collector Cut-off Current	V_{CB} = 50V, V_{BE} = 0			15	nA
I_{EBO}	Emitter-Base Leakage Current	V_{EB} = 4V, I_E = 0			15	nA
On Characteristics						
h_{FE}	DC Current Gain	V_{CE} = 5V, I_C = 10μA V_{CE} = 5V, I_C = 2mA V_{CE} = 5V, I_C = 100mA	40 120 80		 500	
V_{CE}(sat)	Collector-Emitter Saturation Voltage	I_C = 10mA, I_B = 0.5mA I_C = 100mA, I_B = 5mA			0.25 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
Dynamic Characteristics						
f_T	Current Gain Bandwidth Product	V_{CE} = 5V, I_C = 10mA, f = 100MHz	150			MHz
C_{ob}	Output Capacitance	V_{CE} = 10V, I_C = 0, f = 1MHz			5	pF
h_{fe}	Small Signal Current Gain	V_{CE} = 5V, I_C = 2mA, f = 1KHz	240		500	
NF	Noise Figure	V_{CE} = 5V, I_C = 0.2mA R_S = 2KΩ, f = 1KHz, BW = 200Hz			10	dB

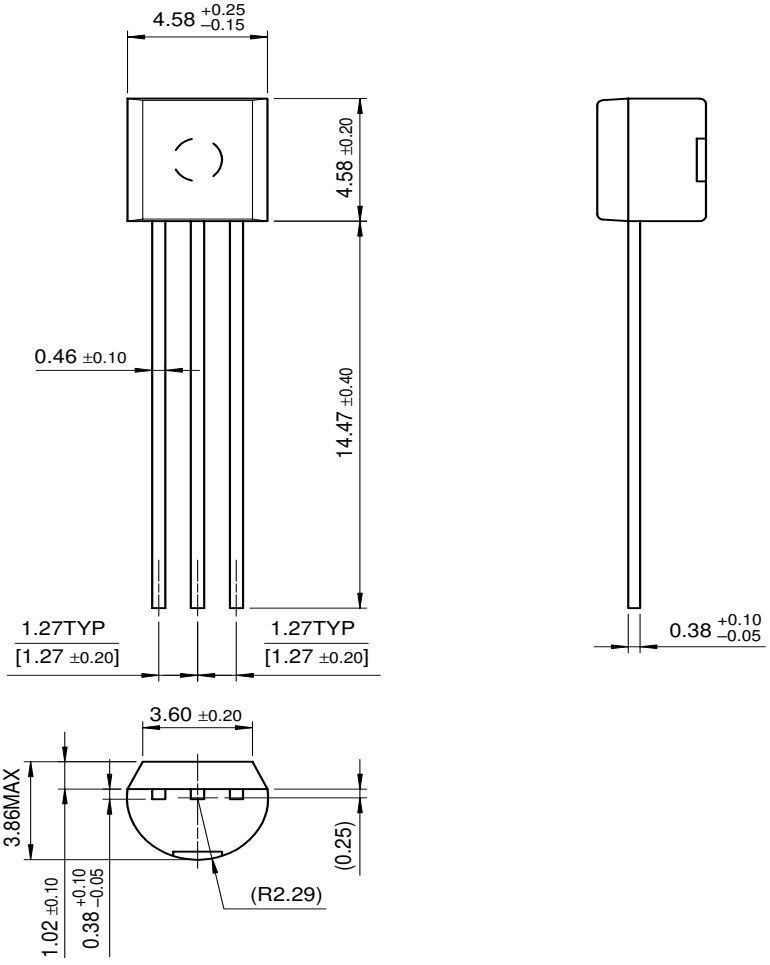
Thermal Characteristics T_A=25°C unless otherwise noted

Symbol	Parameter	Max.	Units
P_D	Total Device Dissipation @T_A=25°C Derate above 25°C	350 2.8	mW mW/°C
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	357	mW/°C
$R_{\theta JC}$	Thermal Resistance, Junction to Case	125	°C/W

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Package Dimensions

TO-92



Dimensions in Millimeters

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CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
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Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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Definition of Terms

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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
Obsolete	Not In Production	This datasheet contains specifications on a product that has been discontinued by Fairchild semiconductor. The datasheet is printed for reference information only.

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