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[Fairchild Semiconductor](#)

[BC182](#)

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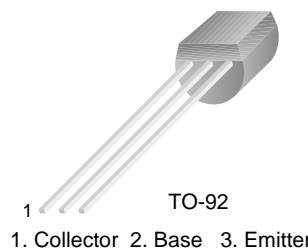
sales@integrated-circuit.com

FAIRCHILD
SEMICONDUCTOR®

BC182

NPN General Purpose Amplifier

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



Absolute Maximum Ratings $T_C=25^\circ\text{C}$ 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	$^\circ\text{C}$

Electrical Characteristics $T_C=25^\circ\text{C}$ unless otherwise noted

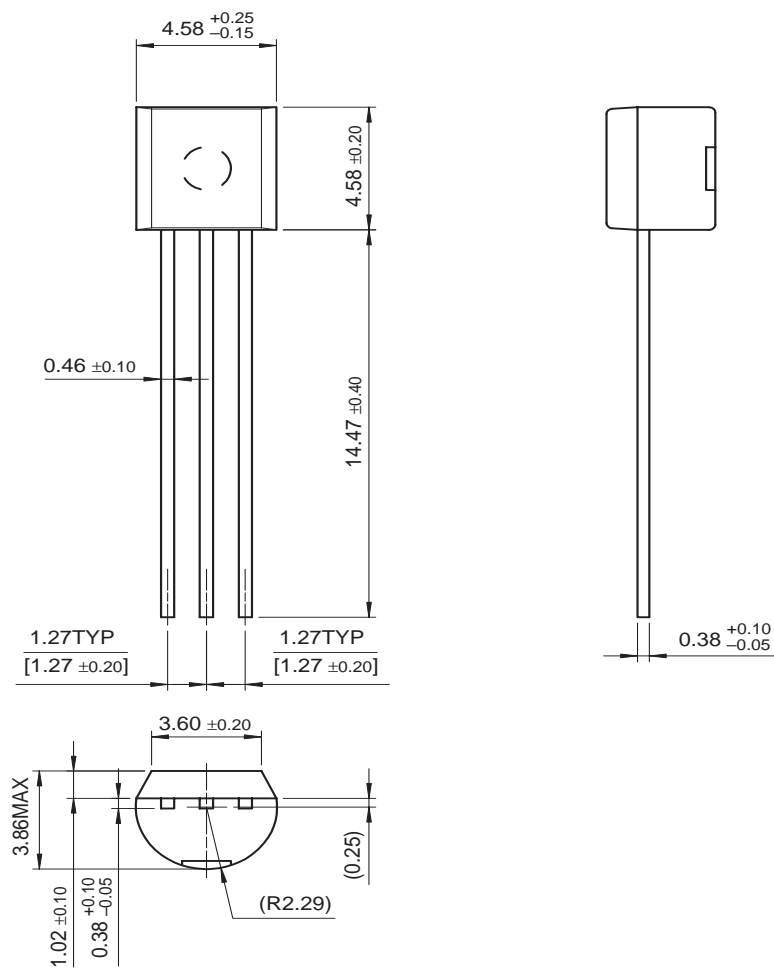
Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
Off Characteristics						
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = 2\text{mA}, I_B = 0$	50			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C = 10\mu\text{A}, I_E = 0$	60			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E = 10\mu\text{A}, I_C = 0$	6			V
I_{CBO}	Collector Cut-off Current	$V_{CB} = 50\text{V}, V_{BE} = 0$			15	nA
I_{EBO}	Emitter-Base Leakage Current	$V_{EB} = 4\text{V}, I_E = 0$			15	nA
On Characteristics						
h_{FE}	DC Current Gain	$V_{CE} = 5\text{V}, I_C = 10\mu\text{A}$ $V_{CE} = 5\text{V}, I_C = 2\text{mA}$ $V_{CE} = 5\text{V}, I_C = 100\text{mA}$	40 120 80		500	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 10\text{mA}, I_B = 0.5\text{mA}$ $I_C = 100\text{mA}, I_B = 5\text{mA}$			0.25 0.6	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 100\text{mA}, I_B = 5\text{mA}$			1.2	V
$V_{BE(on)}$	Base-Emitter On Voltage	$V_{CE} = 5\text{V}, I_C = 2\text{mA}$	0.55		0.7	V
Dynamic Characteristics						
f_T	Current Gain Bandwidth Product	$V_{CE} = 5\text{V}, I_C = 10\text{mA}, f = 100\text{MHz}$	150			MHz
C_{ob}	Output Capacitance	$V_{CE} = 10\text{V}, I_C = 0, f = 1\text{MHz}$			5	pF
h_{fe}	Small Signal Current Gain	$V_{CE} = 5\text{V}, I_C = 2\text{mA}, f = 1\text{KHz}$	125		500	
NF	Noise Figure	$V_{CE} = 5\text{V}, I_C = 0.2\text{mA}$ $R_S = 2\text{K}\Omega, f = 1\text{KHz}$			10	dB

Thermal Characteristics $T_A=25^{\circ}\text{C}$ unless otherwise noted

Symbol	Parameter	Max.	Units
P _D	Total Device Dissipation @ $T_A=25^{\circ}\text{C}$	350	mW
	Derate above 25°C	2.8	mW/°C
R _{θJA}	Thermal Resistance, Junction to Ambient	357	mW/°C
R _{θJC}	Thermal Resistance, Junction to Case	125	°C/W

Package Dimensions

TO-92



Dimensions in Millimeters

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CoolFET™	GlobalOptoisolator™	MicroPak™	QT Optoelectronics™	TruTranslation™
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2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

PRODUCT STATUS DEFINITIONS

Definition of Terms

Datasheet Identification	Product Status	Definition
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