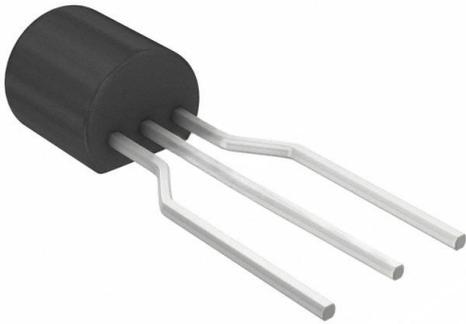


BC182B_J35Z Datasheet

www.digi-electronics.com



<https://www.DiGi-Electronics.com>

DiGi Electronics Part Number	BC182B_J35Z-DG
Manufacturer	onsemi
Manufacturer Product Number	BC182B_J35Z
Description	TRANS NPN 50V 0.1A TO92-3
Detailed Description	Bipolar (BJT) Transistor NPN 50 V 100 mA 150MHz 3 50 mW Through Hole TO-92-3



Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

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Purchase and inquiry

Manufacturer Product Number:

BC182B_J35Z

Series:

-

Transistor Type:

NPN

Voltage - Collector Emitter Breakdown (Max):

50 V

Current - Collector Cutoff (Max):

15nA (ICBO)

Power - Max:

350 mW

Operating Temperature:

-55°C ~ 150°C (TJ)

Package / Case:

TO-226-3, TO-92-3 (TO-226AA) Formed Leads

Base Product Number:

BC182

Manufacturer:

onsemi

Product Status:

Obsolete

Current - Collector (Ic) (Max):

100 mA

Vce Saturation (Max) @ Ib, Ic:

600mV @ 5mA, 100mA

DC Current Gain (hFE) (Min) @ Ic, Vce:

40 @ 10µA, 5V

Frequency - Transition:

150MHz

Mounting Type:

Through Hole

Supplier Device Package:

TO-92-3

Environmental & Export classification

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99

REACH Status:

REACH Unaffected

HTSUS:

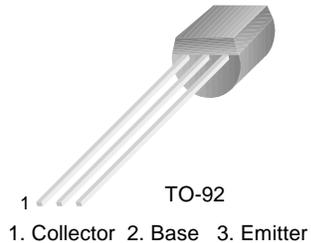
8541.21.0075

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BC182B

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

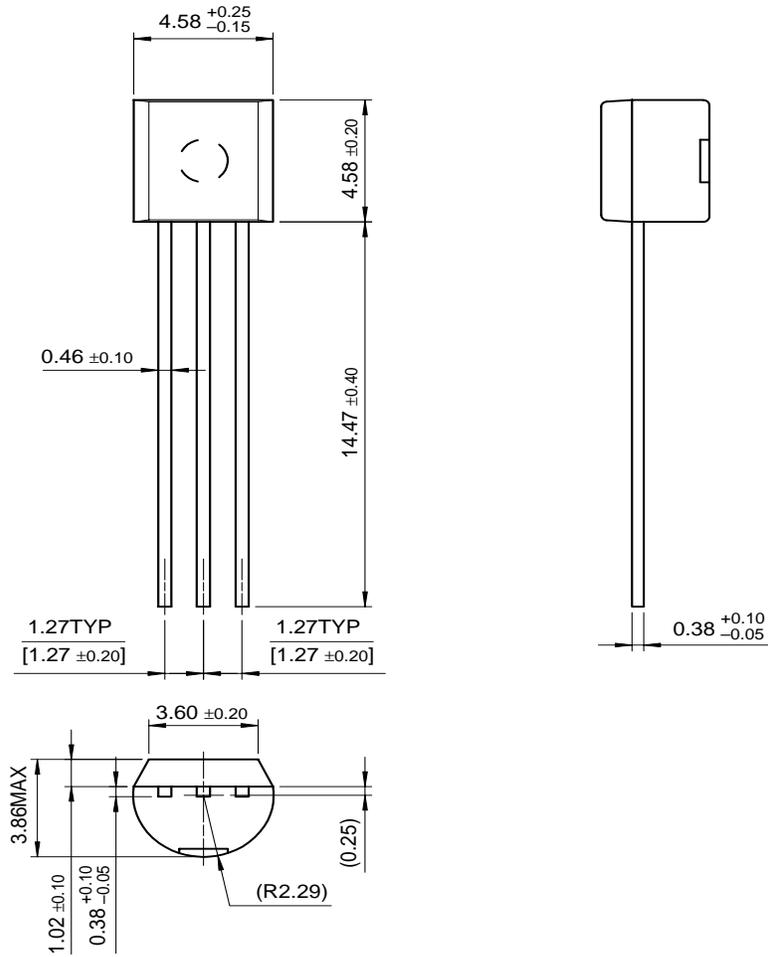
Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
Off Characteristics						
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = 2\text{mA}, I_B = 0$	50			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C = 10\mu\text{A}, I_E = 0$	60			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E = 10\mu\text{A}, I_C = 0$	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	$V_{CE} = 5\text{V}, I_C = 10\mu\text{A}$ $V_{CE} = 5\text{V}, I_C = 100\text{mA}$	40 80			
$V_{CE(sat)}$	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	$V_{CE} = 5\text{V}, I_C = 2\text{mA}, f = 1\text{KHz}$	240		500	
NF	Noise Figure	$V_{CE} = 5\text{V}, I_C = 0.2\text{mA}$ $R_S = 2\text{K}\Omega, f = 1\text{KHz}, \text{BW} = 200\text{Hz}$			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/ $^\circ\text{C}$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	357	mW/ $^\circ\text{C}$
$R_{\theta JC}$	Thermal Resistance, Junction to Case	125	$^\circ\text{C}/\text{W}$

Package Dimensions

TO-92



Dimensions in Millimeters

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PRODUCT STATUS DEFINITIONS

Definition of Terms

Datasheet Identification	Product Status	Definition
Advance Information	Formative or In Design	This datasheet contains the design specifications for product development. Specifications may change in any manner without notice.
Preliminary	First Production	This datasheet contains preliminary data, and supplementary data will be published at a later date. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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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