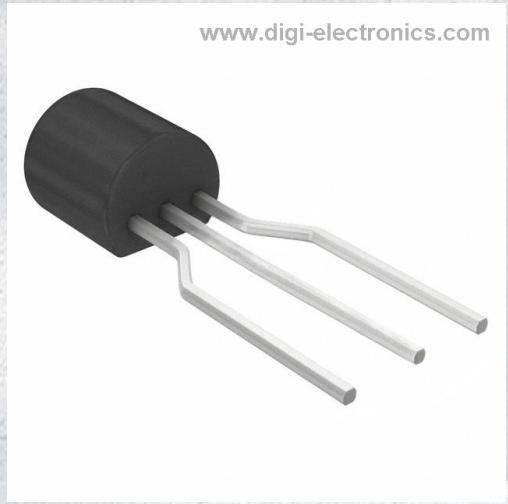
BC212LB_D74Z Datasheet



DiGi Electronics Part Number	BC212LB_D74Z-DG
Manufacturer	onsemi
Manufacturer Product Number	BC212LB_D74Z
Description	TRANS PNP 50V 0.1A TO92-3
Detailed Description	Bipolar (BJT) Transistor PNP 50 V 100 mA 350 mW T hrough Hole TO-92-3

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Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
BC212LB_D74Z	onsemi
Series:	Product Status:
-	Obsolete
Transistor Type:	Current - Collector (Ic) (Max):
PNP	100 mA
Voltage - Collector Emitter Breakdown (Max):	Vce Saturation (Max) @ Ib, Ic:
50 V	600mV @ 5mA, 100mA
Current - Collector Cutoff (Max):	DC Current Gain (hFE) (Min) @ Ic, Vce:
15nA (ICBO)	60 @ 2mA, 5V
Power - Max:	Frequency - Transition:
350 mW	-
Operating Temperature:	Mounting Type:
-55°C ~ 150°C (TJ)	Through Hole
Package / Case:	Supplier Device Package:
TO-226-3, TO-92-3 (TO-226AA) Formed Leads	TO-92-3
Base Product Number:	
BC212	

Environmental & Export classification

Moisture Sensitivity Level (MSL):	REACH Status:
1 (Unlimited)	REACH Unaffected
ECCN:	HTSUS:
EAR99	8541.21.0095

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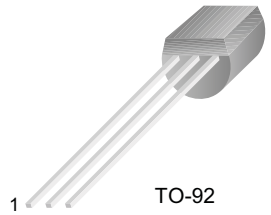
BC212LB

PNP General Purpose Amplifier

- This device is designed for general purpose amplifier application at collector currents to 100mA.
- Sourced from process 68.



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	5	V
I_C	Collector Current - Continuous	100	mA
T_J, T_{STG}	Operating and Storage Junction Temperature Range	- 55 ~ 150	°C

* These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

NOTES:
1. These ratings are based on a maximum junction temperature of 150°C.
2. These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations

Electrical Characteristics T_C=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
Off Characteristics						
BV_{CEO}	Collector-Emitter Breakdown Voltage	I_C = 2mA	50			V
BV_{CBO}	Collector-Base Breakdown Voltage	I_C = 10μA	60			V
BV_{EBO}	Emitter-Base Breakdown 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} = 4V			15	nA
On Characteristics*						
h_{FE}	DC Current Gain	V_{CE} = 5V, I_C = 10μA V_{CE} = 5V, I_C = 2mA	40 60			
V_{CE}(sat)	Collector-Emitter Saturation Voltage	I_C = 100mA, I_B = 5mA			0.6	V
V_{BE}(sat)	Base-Emitter Saturation Voltage	I_C = 100mA, I_B = 5mA			1.4	V
V_{BE}(on)	Base-Emitter On Voltage	V_{CE} = 5V, I_C = 2mA	0.6		0.72	V
Small Signal Characteristics						
C_{ob}	Output Capacitance	V_{CE} = 10V, f = 1MHz			6	pF
h_{FE}	Small Signal Current Gain	V_{CE} = 5V, I_C = 2mA, f = 1KHz	60			
NF	Noise Figure	V_{CE} = 5V, I_C = 200μA, f = 1KHz R_G = 2KΩ, BW = 200Hz			10	dB

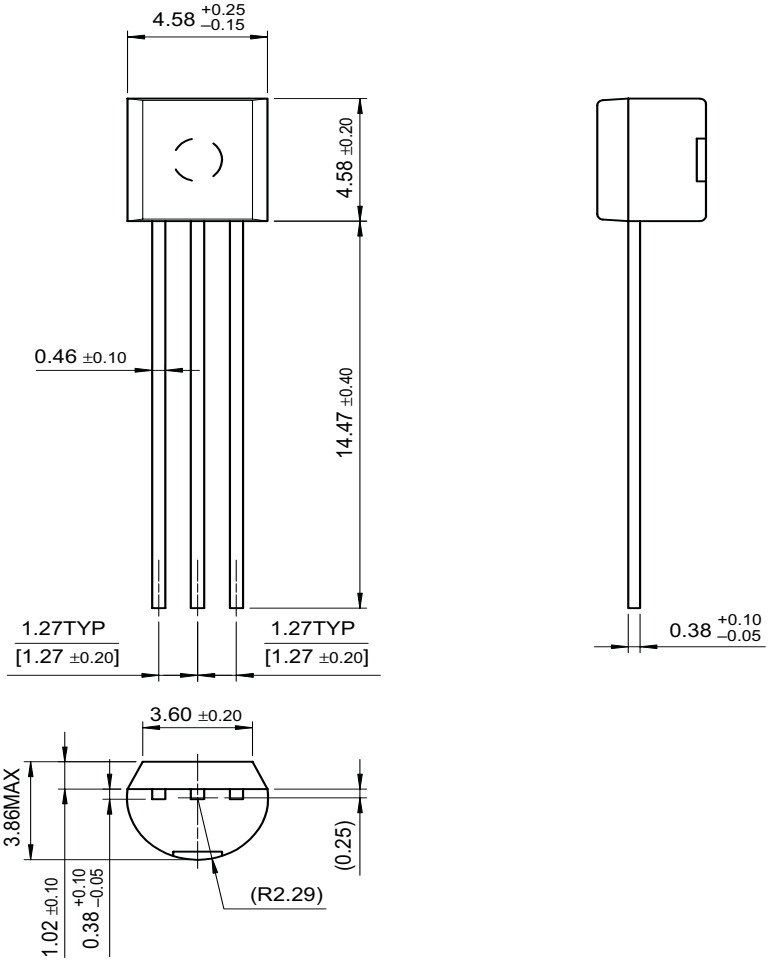
* Pulse Test: Pulse Width < 300μs, Duty Cycle < 2.0%

Thermal Characteristics T_A=25°C unless otherwise noted

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

Package Dimensions

TO-92



Dimensions in Millimeters

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DOME™	GlobalOptoisolator™	MICROWIRE™	QS™	SyncFET™
EcoSPARK™	GTO™	MSX™	QT Optoelectronics™	TinyLogic™
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Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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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.
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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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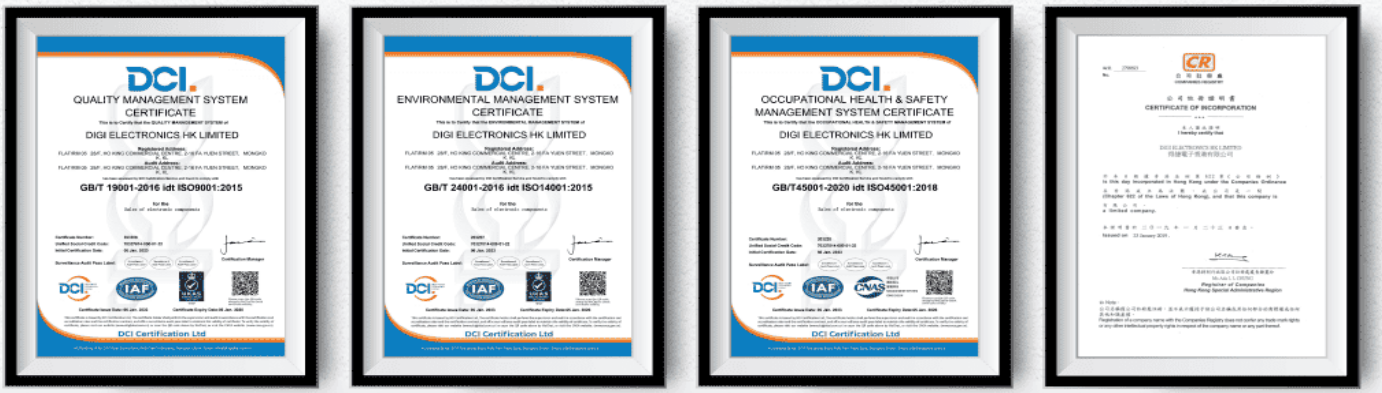

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