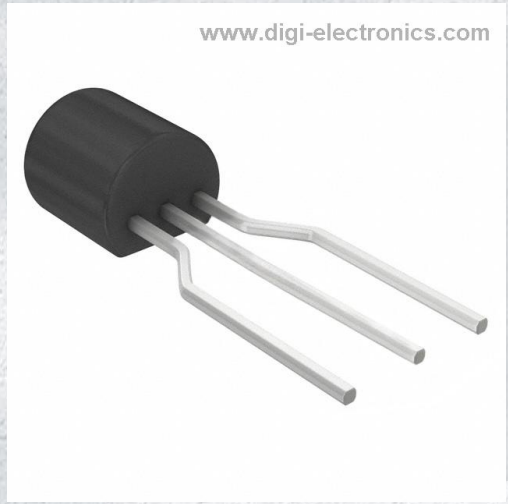
2N3702_D75Z Datasheet



DiGi Electronics Part Number	2N3702_D75Z-DG
Manufacturer	onsemi
Manufacturer Product Number	2N3702_D75Z
Description	TRANS PNP 25V 0.5A TO92-3
Detailed Description	Bipolar (BJT) Transistor PNP 25 V 500 mA 100MHz 625 mW Through Hole TO-92-3

https://www.DiGi-Electronics.com

Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
2N3702_D75Z	onsemi
Series:	Product Status:
-	Obsolete
Transistor Type:	Current - Collector (Ic) (Max):
PNP	500 mA
Voltage - Collector Emitter Breakdown (Max):	Vce Saturation (Max) @ Ib, Ic:
25 V	250mV @ 5mA, 50mA
Current - Collector Cutoff (Max):	DC Current Gain (hFE) (Min) @ Ic, Vce:
100nA (ICBO)	60 @ 50mA, 5V
Power - Max:	Frequency - Transition:
625 mW	100MHz
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:	
2N3702	

Environmental & Export classification

Moisture Sensitivity Level (MSL):	REACH Status:
1 (Unlimited)	REACH Unaffected
ECCN:	HTSUS:
EAR99	8541.21.0075

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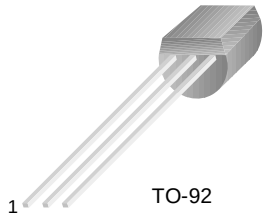
2N3702

PNP General Purpose Amplifier

- This device designed for use as general purpose amplifier and switches requiring collector currents to 300mA.
- Sourced from Process 68.
- See PN200 for Characteristics.



TO-92

1. Emitter 2. Collector 3. Base

PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings* T_a=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CEO}	Collector-Emitter Voltage	-25	V
V_{CBO}	Collector-Base Voltage	-40	V
V_{EBO}	Emitter-Base Voltage	-5.0	V
I_C	Collector Current - Continuous	-500	mA
T_J, T_{ST}	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 degrees C.
2) These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

Electrical Characteristics T_a=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
Off Characteristics						
$BV_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C = -10mA, I_B = 0	-25			V
$BV_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C = -100μA, I_E = 0	-40			V
$BV_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E = -100μA, I_C = 0	-5.0			V
I_{CBO}	Collector Cut-off Current	V_{CB} = -20V, I_E = 0			-100	nA
I_{EBO}	Emitter Cut-off Current	V_{EB} = -3.0V, I_C = 0			-100	nA
On Characteristics *						
h_{FE}	DC Current Gain	V_{CE}= -5.0V, I_C = -50mA	60		300	
V_{CE}(sat)	Collector-Emitter Saturation Voltage	I_C = -50mA, I_B = -5.0mA			-0.25	V
V_{BE}(sat)	Base-Emitter Saturation Voltage	V_{CE}= -5.0V, I_C = -50mA	-0.6		-1.0	V
Small Signal Characteristics						
C_{ob}	Current Gain Bandwidth Product	V_{CB} = -10V, f = 1.0MHz			12	pF
f_T	Output Capacitance	I_E = -50mA, V_{CE} = -5.0V	100			MHz

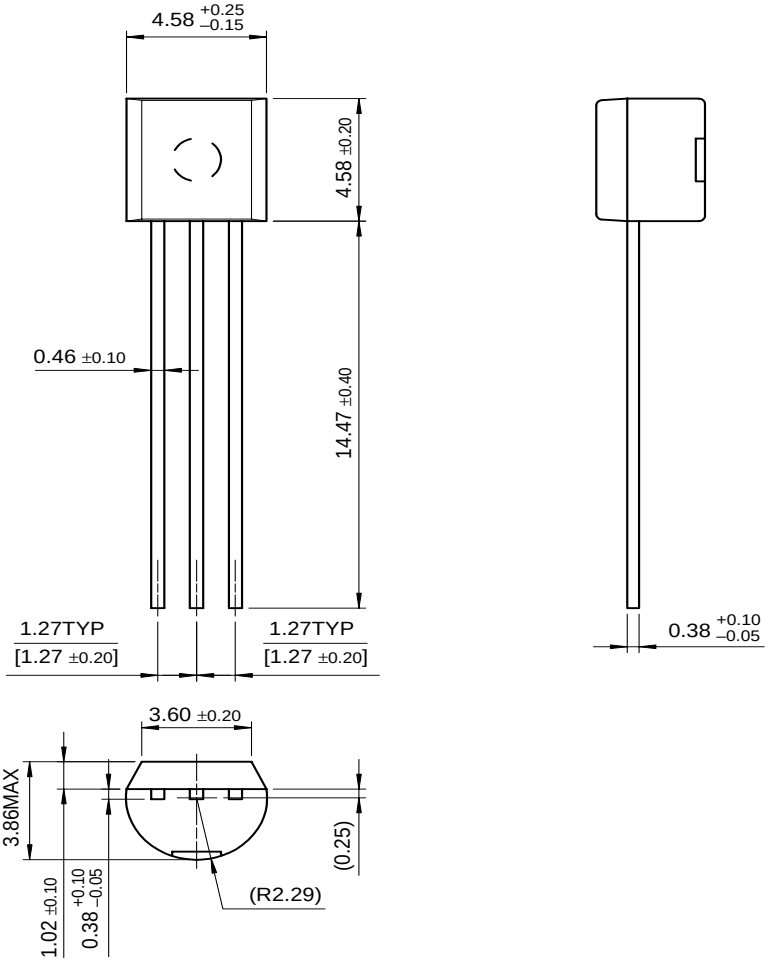
* Pulse Test: Pulse ≤ 300μs, Duty Cycle ≤ 2.0%

Thermal Characteristics T_A=25°C unless otherwise noted

Symbol	Parameter	Max.	Units
P_D	Total Device Dissipation Derate above 25°C	625 5.0	mW mW/°C
$R_{\theta JC}$	Thermal Resistance, Junction to Case	83.3	°C/W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	200	°C/W

Package Dimensions

TO-92



Dimensions in Millimeters

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CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
DOME™	GlobalOptoisolator™	MICROWIRE™	QS™	SyncFET™
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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.
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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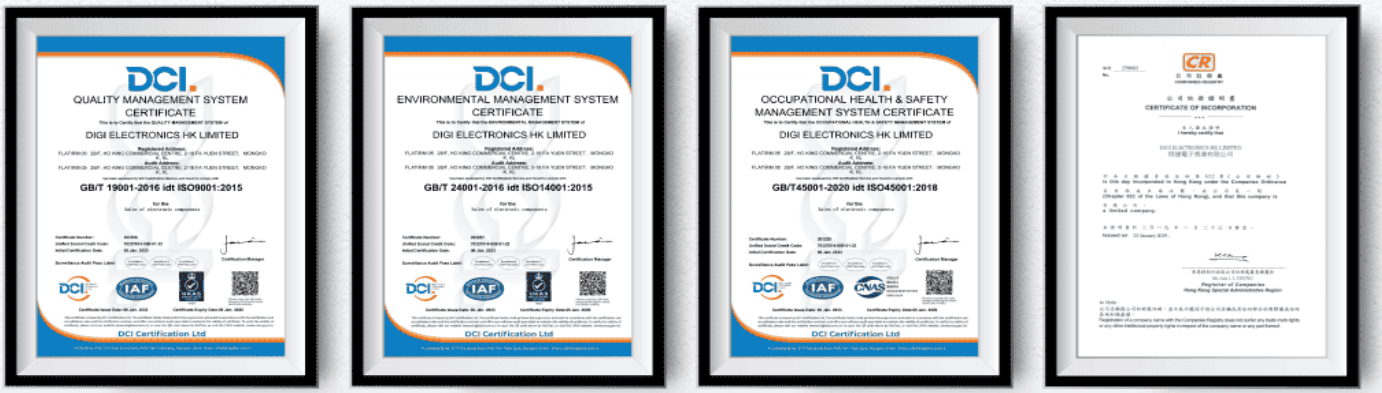

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