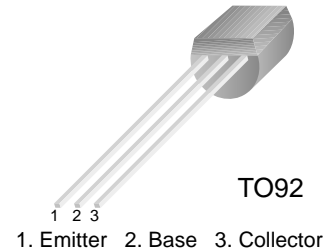


2N6428A

NPN Epitaxial Silicon Transistor

Features

- This device is designed for high gain, general purpose amplifier applications at collector currents from 1uA to 200 mA.



Absolute Maximum Ratings* $T_a = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current - Continuous	200	mA
P_D	Total Device Dissipation	625	mW
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{STG}	Storage Temperature Range	- 55 ~ 150	$^\circ\text{C}$

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

NOTES:

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

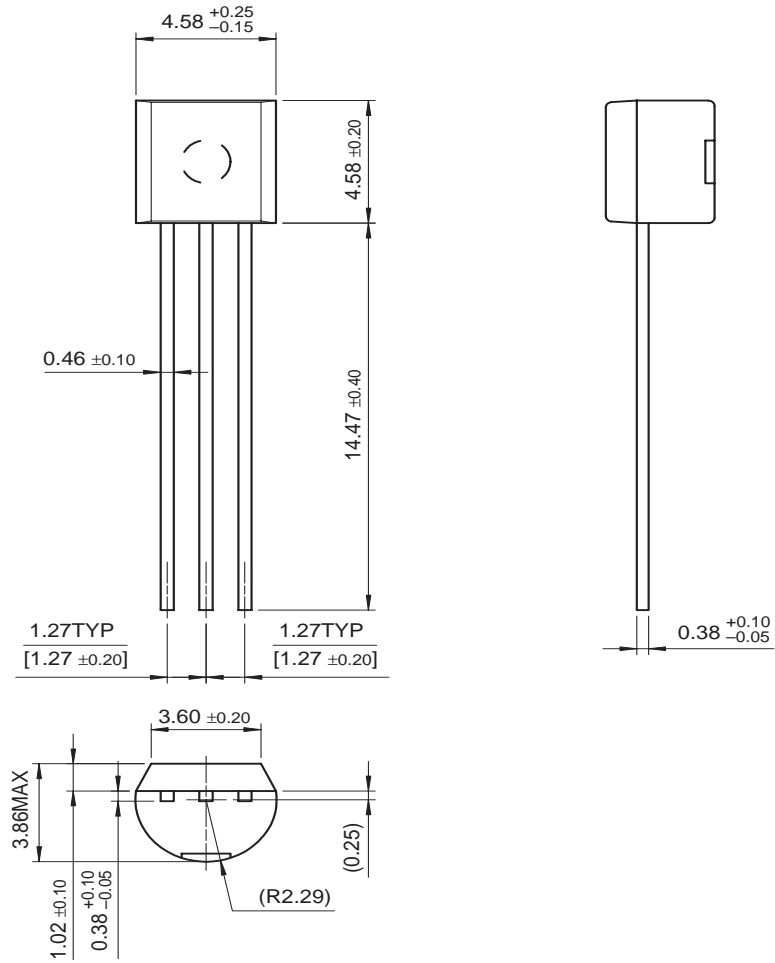
Electrical Characteristics* $T_C = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Conditions	Min.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	$I_C = 100\mu\text{A}, I_E = 0$	60		V
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C = 1\text{mA}, I_B = 0$	50		V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E = 100\mu\text{A}, I_C = 0$	5		V
I_{CBO}	Collector Cut-off Current	$V_{CB} = 30\text{V}, I_E = 0$		10	nA
I_{EBO}	Emitter Cut-off Current	$V_{BE} = 5\text{V}, I_C = 0$		10	nA
h_{FE}	DC Current Gain	$V_{CE} = 5\text{V}, I_C = 0.01\text{mA}$ $V_{CE} = 5\text{V}, I_C = 0.1\text{mA}$ $V_{CE} = 5\text{V}, I_C = 1.0\text{mA}$ $V_{CE} = 5\text{V}, I_C = 10\text{mA}$	250 250 250 250	650 650	
$V_{CE}(\text{sat})$	Collector-Emitter Saturation Voltage	$I_C = 10\text{mA}, I_B = 0.5\text{mA}$ $I_C = 100\text{mA}, I_B = 5.0\text{mA}$	0.2 0.6		V V
$V_{BE}(\text{on})$	Base-Emitter On Voltage	$V_{CE} = 5\text{V}, I_C = 1.0\text{mA}$	0.56	0.66	V
f_T	Current Gain Bandwidth Product	$I_C = 1\text{mA}, V_{CE} = 5.0\text{V}, f = 100\text{MHz}$	100	700	MHz
C_{ob}	Output Capacitance	$V_{CB} = 10\text{V}, I_E = 0, f = 1\text{MHz}$		3	pF

* DC Item are tested by Pulse Test: Pulse Width \leq 300us, Duty Cycle \leq 2%

Package Dimensions

TO-92



Dimensions in Millimeters

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	MSXPro™	RapidConnect™	TINYOPTO™	
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Programmable Active Droop™				

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PRODUCT STATUS DEFINITIONS

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.
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Rev. I22