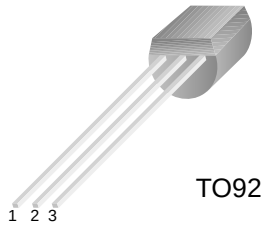
FAIRCHILD SEMICONDUCTOR®

December 2006

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.



TO92

1 2 3

1. Emitter 2. Base 3. Collector

Absolute Maximum Ratings * T_a = 25°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	°C
T_{STG}	Storage 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

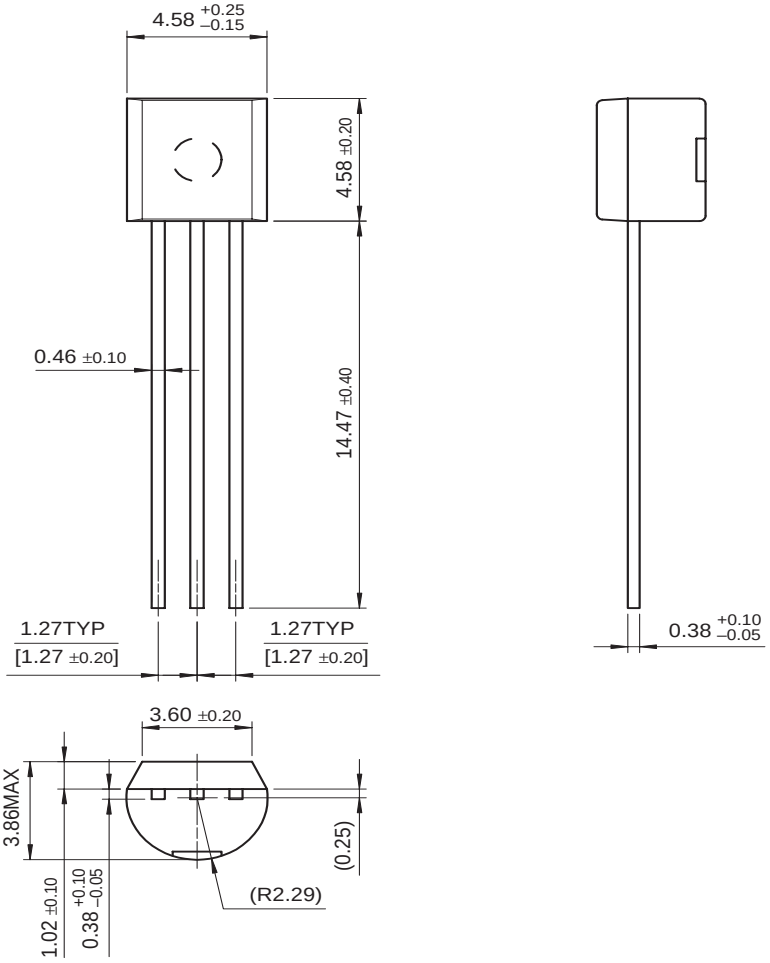
Electrical Characteristics* T_C = 25°C unless otherwise noted

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

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

Package Dimensions

TO-92



Dimensions in Millimeters

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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.

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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.
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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.

Rev. I22

2N6428A

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Contents

Features

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

BUY

Datasheet

Download this datasheet

e-mail this datasheet

This page

Print version

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- Request samples
- How to order products
- Product Change Notices (PCNs)
- Support
- Sales support
- Quality and reliability
- Design center

back to top

Product status/pricing/packaging BUY

Product	Product status	Pb-free Status	Pricing*	Package type	Leads	Packing method	Package Marking Convention**
2N6428ABU	Full Production	Full Production	$0.023	TO-92	3	BULK	Line 1: 2N Line 2: 6428A Line 3: -&3
2N6428ATA	Full Production	Full Production	$0.023	TO-92	3	AMMO	Line 1: 2N Line 2: 6428A Line 3: -&3

* Fairchild 1,000 piece Budgetary Pricing
** A sample button will appear if the part is available through Fairchild's on-line samples program. If there is no sample button, please contact a Fairchild distributor to obtain samples

Indicates product with Pb-free second-level interconnect. For more information click here.

Package marking information for product 2N6428A is available. Click here for more information .

back to top

Qualification Support

Click on a product for detailed qualification data

Product
2N6428ABU
2N6428ATA

back to top