

2N6428
2N6429

**SILICON
NPN TRANSISTORS**



TO-92 CASE



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DESCRIPTION:

The CENTRAL SEMICONDUCTOR 2N6428 and 2N6429 are silicon NPN transistors manufactured by the epitaxial planar process, designed for high gain amplifier applications.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

	SYMBOL	2N6428	2N6429	UNITS
Collector-Base Voltage	V_{CBO}	60	55	V
Collector-Emitter Voltage	V_{CEO}	50	45	V
Emitter-Base Voltage	V_{EBO}	6.0		V
Continuous Collector Current	I_C	200		mA
Power Dissipation	P_D	625		mW
Power Dissipation ($T_C=25^{\circ}\text{C}$)	P_D	1.5		W
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150		$^{\circ}\text{C}$
Thermal Resistance	Θ_{JA}	200		$^{\circ}\text{C/W}$
Thermal Resistance	Θ_{JC}	83.3		$^{\circ}\text{C/W}$

ELECTRICAL CHARACTERISTICS: ($T_A=25^{\circ}\text{C}$)

SYMBOL	TEST CONDITIONS	2N6428		2N6429		UNITS
		MIN	MAX	MIN	MAX	
I_{CBO}	$V_{CB}=30\text{V}$	-	10	-	10	nA
I_{CEO}	$V_{CE}=30\text{V}$	-	25	-	25	nA
I_{EBO}	$V_{EB}=5.0\text{V}$	-	10	-	10	nA
BV_{CBO}	$I_C=100\mu\text{A}$	60	-	55	-	V
BV_{CEO}	$I_C=1.0\text{mA}$	50	-	45	-	V
$V_{CE(SAT)}$	$I_C=10\text{mA}, I_B=0.5\text{mA}$	-	0.20	-	0.20	V
$V_{CE(SAT)}$	$I_C=100\text{mA}, I_B=5.0\text{mA}$	-	0.60	-	0.60	V
$V_{BE(ON)}$	$V_{CE}=5.0\text{V}, I_C=1.0\text{mA}$	0.56	0.66	0.56	0.66	V
h_{FE}	$V_{CE}=5.0\text{V}, I_C=10\mu\text{A}$	250	-	500	-	
h_{FE}	$V_{CE}=5.0\text{V}, I_C=100\mu\text{A}$	250	650	500	1250	
h_{FE}	$V_{CE}=5.0\text{V}, I_C=1.0\text{mA}$	250	-	500	-	
h_{FE}	$V_{CE}=5.0\text{V}, I_C=10\text{mA}$	250	-	500	-	
f_T	$V_{CE}=5.0\text{V}, I_C=1.0\text{mA}, f=100\text{MHz}$	100	700	100	700	MHz
C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1.0\text{MHz}$	-	3.0	-	3.0	pF
h_{ie}	$V_{CE}=5.0\text{V}, I_C=1.0\text{mA}, f=1.0\text{kHz}$	3.0	30	6.0	60	k Ω
h_{re}	$V_{CE}=5.0\text{V}, I_C=1.0\text{mA}, f=1.0\text{kHz}$	2.0	20	5.0	50	$\times 10^{-4}$
h_{fe}	$V_{CE}=5.0\text{V}, I_C=1.0\text{mA}, f=1.0\text{kHz}$	200	800	400	1600	
h_{oe}	$V_{CE}=5.0\text{V}, I_C=1.0\text{mA}, f=1.0\text{kHz}$	5.0	50	10	100	μS

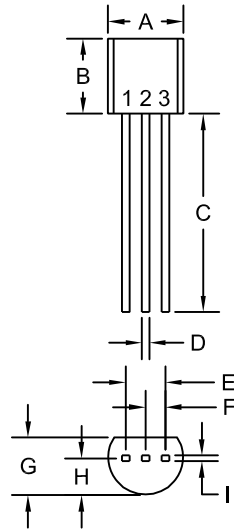
R1 (10-September 2019)

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TO-92 CASE - MECHANICAL OUTLINE



R1

DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A (DIA)	0.175	0.205	4.45	5.21
B	0.170	0.210	4.32	5.33
C	0.500	-	12.70	-
D	0.016	0.022	0.41	0.56
E	0.100		2.54	
F	0.050		1.27	
G	0.125	0.165	3.18	4.19
H	0.080	0.105	2.03	2.67
I	0.015		0.38	

TO-92 (REV: R1)

LEAD CODE:

- 1) Emitter
- 2) Base
- 3) Collector

MARKING:

FULL PART NUMBER

R1 (10-September 2019)

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OUTSTANDING SUPPORT AND SUPERIOR SERVICES



PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

CONTACT US

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