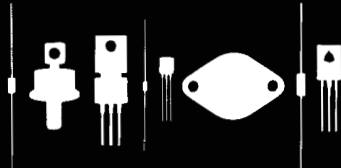




THE DATASHEET OF
2N6428



Central
 Semiconductor Corp.
**Central
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 Semiconductor Corp.**
 145 Adams Avenue
 Hauppauge, New York 11788



2N6428
 2N6429

NPN SILICON TRANSISTOR

JEDEC TO-92 CASE (EBC)

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N6428, 2N6429 types are NPN Silicon Transistors manufactured by the epitaxial planar process, designed for high gain amplifier applications.

MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$)

	<u>SYMBOL</u>	<u>2N6428</u>	<u>2N6429</u>	<u>UNITS</u>
Collector-Base Voltage	V_{CB0}	60	55	V
Collector-Emitter Voltage	V_{CE0}	50	45	V
Emitter-Base Voltage	V_{EBO}		6.0	V
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	$^\circ\text{C}/\text{W}$
Thermal Resistance	Θ_{JC}		83.3	$^\circ\text{C}/\text{W}$

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

<u>SYMBOL</u>	<u>TEST CONDITIONS</u>	<u>2N6428</u>		<u>2N6429</u>		<u>UNITS</u>
		<u>MIN</u>	<u>MAX</u>	<u>MIN</u>	<u>MAX</u>	
I_{CBO}	$V_{CB} = 30\text{V}$		10		10	nA
I_{CEO}	$V_{CE} = 30\text{V}$		25		25	nA
I_{EBO}	$V_{BE} = 5.0\text{V}$		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
C_{ib}	$V_{BE} = 0.5\text{V}, I_C = 0, f = 1.0\text{MHz}$		8.0		8.0	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	$\text{k}\Omega$
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	μmhos

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

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- Package details
- Application notes
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- 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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