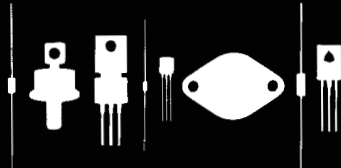


Central  
 Semiconductor Corp.  
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 145 Adams Avenue  
 Hauppauge, New York 11788



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	$\Theta_{JA}$		200	$^\circ\text{C}/\text{W}$
Thermal Resistance	$\Theta_{JC}$		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	$\mu\text{mhos}$

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