



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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2N6430 2N6431 NPN
2N6432 2N6433 PNP

**COMPLEMENTARY
SILICON TRANSISTORS**



TO-18 CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 2N6430 series devices are complementary small signal silicon transistors manufactured by the epitaxial planar process, designed for high voltage amplifier applications.

MARKING: FULL PART NUMBER

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

SYMBOL	2N6430	2N6431	UNITS
	2N6432	2N6433	
Collector-Base Voltage	V_{CBO} 200	300	V
Collector-Emitter Voltage	V_{CEO} 200	300	V
Emitter-Base Voltage (NPN)	V_{EBO}	6.0	V
Emitter-Base Voltage (PNP)	V_{EBO}	5.0	V
Continuous Collector Current	I_C	500	mA
Power Dissipation ($T_C=25^\circ\text{C}$)	P_D	1.8	W
Power Dissipation	P_D	500	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +200	$^\circ\text{C}$
Thermal Resistance	θ_{JA}	0.35	$^\circ\text{C}/\text{mW}$
Thermal Resistance	θ_{JC}	97.2	$^\circ\text{C}/\text{W}$

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

SYMBOL	TEST CONDITIONS	2N6430		2N6432		UNITS
		2N6431	2N6433	MIN	MAX	
I_{CBO}	$V_{CB}=160\text{V}$ (2N6430, 2N6432)	-	100	-	250	nA
I_{CBO}	$V_{CB}=200\text{V}$ (2N6431, 2N6433)	-	100	-	250	nA
I_{EBO}	$V_{EB}=4.0\text{V}$	-	100	-	-	nA
I_{EBO}	$V_{EB}=3.0\text{V}$	-	-	-	100	nA
BV_{CBO}	$I_C=100\mu\text{A}$ (2N6430, 2N6432)	200	-	200	-	V
BV_{CBO}	$I_C=100\mu\text{A}$ (2N6431, 2N6433)	300	-	300	-	V
BV_{CEO}	$I_C=1.0\text{mA}$ (2N6430, 2N6432)	200	-	200	-	V
BV_{CEO}	$I_C=1.0\text{mA}$ (2N6431, 2N6433)	300	-	300	-	V
BV_{EBO}	$I_E=100\mu\text{A}$	6.0	-	5.0	-	V
$V_{CE(SAT)}$	$I_C=20\text{mA}, I_B=2.0\text{mA}$	-	0.5	-	0.5	V
$V_{BE(SAT)}$	$I_C=20\text{mA}, I_B=2.0\text{mA}$	-	0.9	-	0.9	V
h_{FE}	$V_{CE}=10\text{V}, I_C=1.0\text{mA}$	25	-	25	-	
h_{FE}	$V_{CE}=10\text{V}, I_C=10\text{mA}$	40	-	40	-	
h_{FE}	$V_{CE}=10\text{V}, I_C=30\text{mA}$	50	200	30	150	

R2 (3-April 2018)

2N6430 2N6431 NPN
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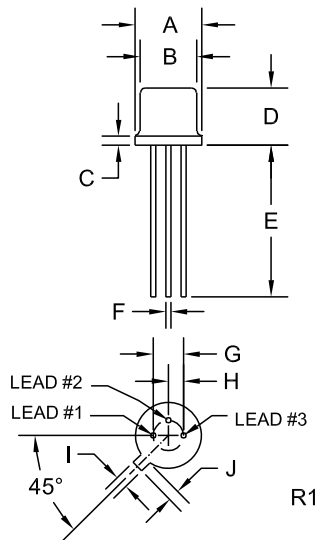
COMPLEMENTARY
 SILICON TRANSISTORS



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

SYMBOL	TEST CONDITIONS	2N6430 2N6431		2N6432 2N6433		UNITS
		MIN	MAX	MIN	MAX	
f_T	$V_{CE}=20\text{V}$, $I_C=10\text{mA}$, $f=100\text{MHz}$	50	200	-	-	MHz
f_T	$V_{CE}=20\text{V}$, $I_C=10\text{mA}$, $f=20\text{MHz}$	-	-	50	-	MHz
C_{ob}	$V_{CB}=20\text{V}$, $I_E=0$, $f=1.0\text{MHz}$	-	4.0	-	6.0	pF

TO-18 CASE - MECHANICAL OUTLINE



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A (DIA)	0.209	0.230	5.31	5.84
B (DIA)	0.178	0.195	4.52	4.95
C	-	0.030	-	0.76
D	0.170	0.210	4.32	5.33
E	0.500	-	12.70	-
F (DIA)	0.016	0.019	0.41	0.48
G (DIA)	0.100		2.54	
H	0.050		1.27	
I	0.036	0.046	0.91	1.17
J	0.028	0.048	0.71	1.22

TO-18 (REV: R1)

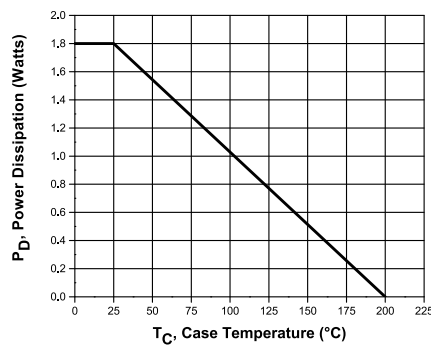
LEAD CODE:

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

MARKING:

FULL PART NUMBER

Power Derating



R2 (3-April 2018)

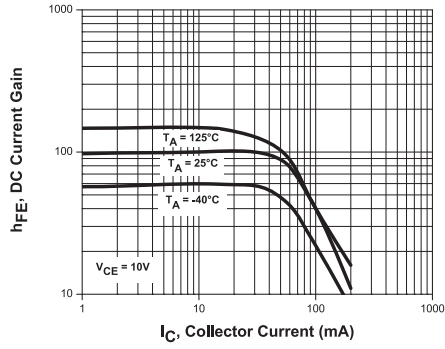
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 SILICON TRANSISTORS

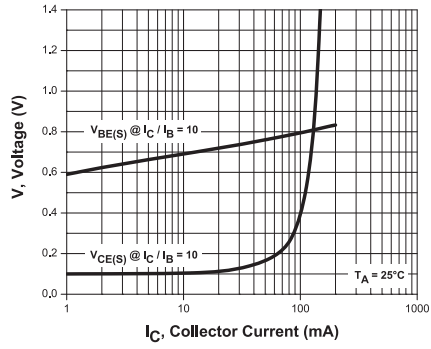


NPN TYPICAL ELECTRICAL CHARACTERISTICS

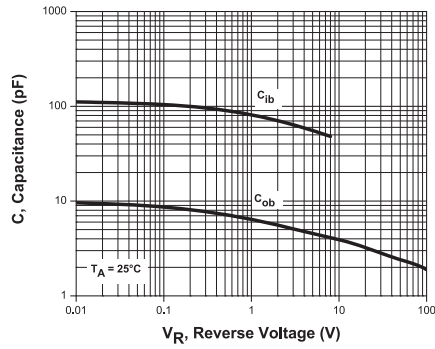
DC Current Gain



"ON" Voltage



Capacitance



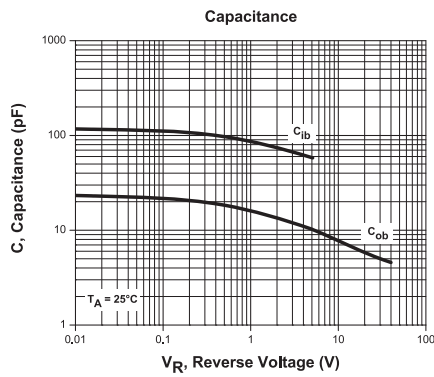
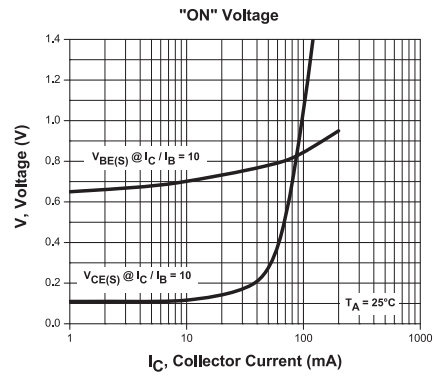
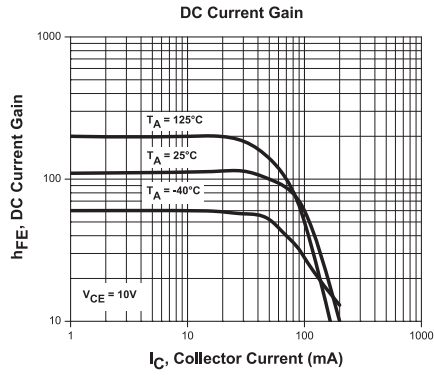
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COMPLEMENTARY
 SILICON TRANSISTORS



PNP TYPICAL ELECTRICAL CHARACTERISTICS



R2 (3-April 2018)

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).

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