

2N5415
2N5416

**SILICON
PNP TRANSISTORS**



TO-39 CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 2N5415 and 2N5416 are silicon PNP transistors designed for consumer and industrial line-operated applications.

MARKING: FULL PART NUMBER

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

Collector-Base Voltage
Collector-Emitter Voltage
Emitter-Base Voltage
Continuous Collector Current
Continuous Base Current
Power Dissipation
Operating and Storage Junction Temperature

SYMBOL	2N5415	2N5416	UNITS
V_{CBO}	200	350	V
V_{CEO}	200	300	V
V_{EBO}	4.0	6.0	V
I_C		1.0	A
I_B		0.5	A
P_D		1.0	W
T_J, T_{stg}	-65 to +200		$^\circ\text{C}$

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

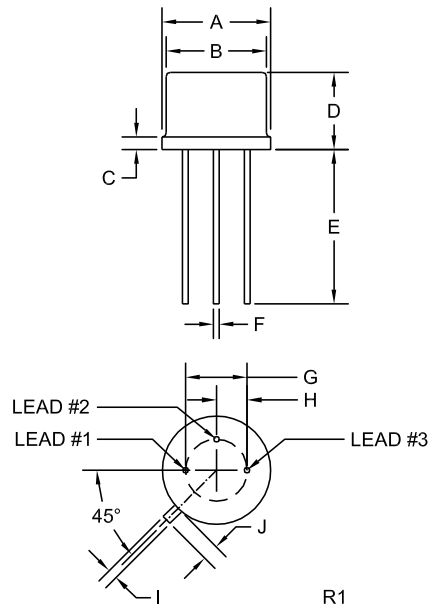
SYMBOL	TEST CONDITIONS	2N5415		2N5416		UNITS
		MIN	MAX	MIN	MAX	
I_{CBO}	$V_{CB}=175\text{V}$	-	50	-	-	μA
I_{CBO}	$V_{CB}=280\text{V}$	-	-	-	50	μA
I_{CEV}	$V_{CE}=200\text{V}, V_{EB}=1.5\text{V}$	-	50	-	-	μA
I_{CEV}	$V_{CE}=300\text{V}, V_{EB}=1.5\text{V}$	-	-	-	50	μA
I_{CEO}	$V_{CE}=150\text{V}$	-	50	-	-	μA
I_{CEO}	$V_{CE}=250\text{V}$	-	-	-	50	μA
I_{EBO}	$V_{EB}=4.0\text{V}$	-	20	-	-	μA
I_{EBO}	$V_{EB}=6.0\text{V}$	-	-	-	20	μA
BV_{CEO}	$I_C=50\text{mA}$	200	-	300	-	V
BV_{CER}	$I_C=50\text{mA}, R_{BE}=50\Omega$	-	-	350	-	V
$V_{CE(SAT)}$	$I_C=50\text{mA}, I_B=5.0\text{mA}$	-	2.5	-	2.0	V
$V_{BE(SAT)}$	$I_C=50\text{mA}, I_B=5.0\text{mA}$	-	1.5	-	1.5	V
h_{FE}	$V_{CE}=10\text{V}, I_C=50\text{mA}$	30	150	30	120	
h_{fe}	$V_{CE}=10\text{V}, I_C=5.0\text{mA}, f=1.0\text{kHz}$	25	-	25	-	
f_T	$V_{CE}=10\text{V}, I_C=10\text{mA}, f=5.0\text{MHz}$	15	-	15	-	MHz
C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1.0\text{MHz}$	-	25	-	25	pF

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TO-39 CASE - MECHANICAL OUTLINE



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A (DIA)	0.335	0.370	8.51	9.40
B (DIA)	0.315	0.335	8.00	8.51
C	-	0.040	-	1.02
D	0.240	0.260	6.10	6.60
E	0.500	-	12.70	-
F (DIA)	0.016	0.021	0.41	0.53
G (DIA)	0.200		5.08	
H	0.100		2.54	
I	0.028	0.034	0.71	0.86
J	0.029	0.045	0.74	1.14

TO-39 (REV: R1)

LEAD CODE:

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

MARKING: FULL PART NUMBER

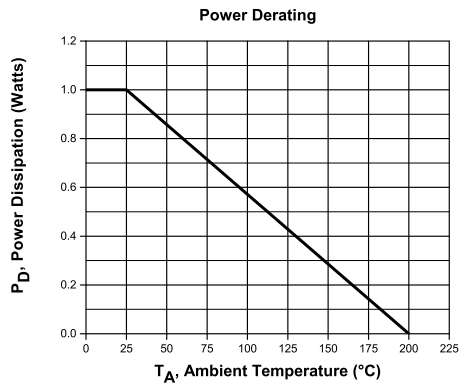
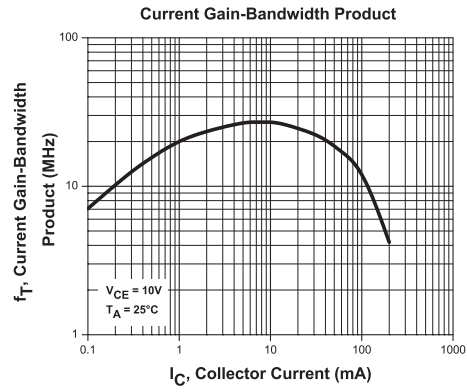
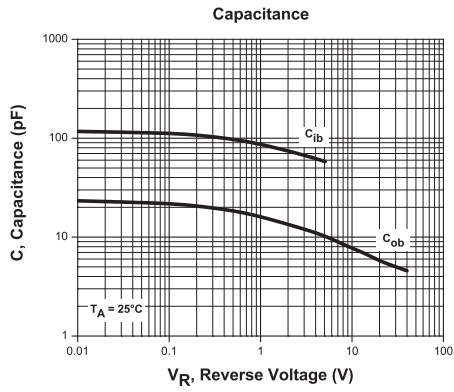
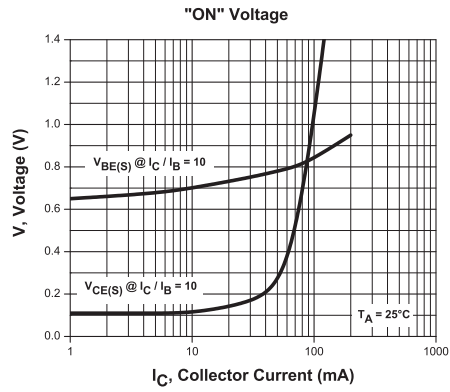
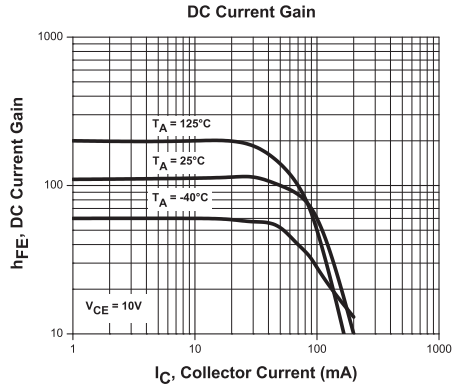
R2 (16-December 2013)

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TYPICAL ELECTRICAL CHARACTERISTICS



R2 (16-December 2013)

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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