

# Central<sup>TM</sup> Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

2N5366  
2N5367

PNP SILICON TRANSISTOR

JEDEC TO-92 CASE (ECB)

## DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N5366, 2N5367 types are PNP Silicon Planar Epitaxial Transistors designed for general purpose switching and amplifier applications.

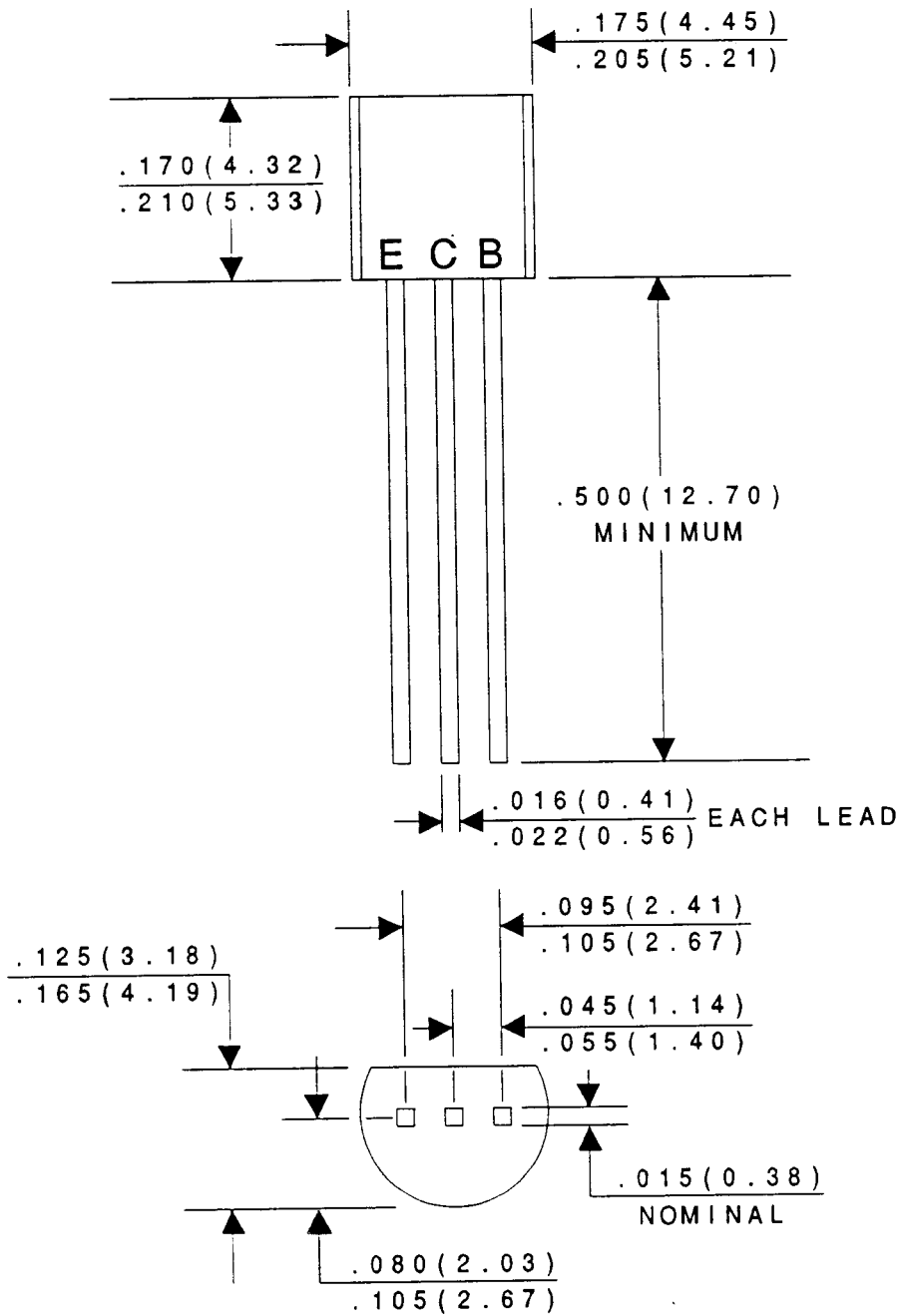
## MAXIMUM RATINGS (T<sub>A</sub> = 25°C)

	SYMBOL		UNITS
Collector-Base Voltage	V <sub>CBO</sub>	40	V
Collector-Emitter Voltage	V <sub>CEO</sub>	40	V
Emitter-Base Voltage	V <sub>EBO</sub>	4.0	V
Continuous Collector Current	I <sub>C</sub>	300	mA
Collector Current (t = 10μsec)	I <sub>C</sub>	700	mA
Power Dissipation	P <sub>D</sub>	625	mW
Operating and Storage			
Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-65 to +150	°C
Thermal Resistance	θ <sub>JA</sub>	0.2	°C/mW

## ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	2N5366		2N5367		UNITS
		MIN	MAX	MIN	MAX	
I <sub>CBO</sub>	V <sub>CB</sub> = 40V		100		100	nA
I <sub>CBO</sub>	V <sub>CB</sub> = 40V, T <sub>A</sub> = 100°C		10		10	μA
I <sub>CES</sub>	V <sub>CB</sub> = 40V		100		100	nA
I <sub>EBO</sub>	V <sub>EB</sub> = 4.0V		10		10	μA
BV <sub>CEO</sub>	I <sub>C</sub> = 10mA	40		40		V
V <sub>CE(SAT)</sub>	I <sub>C</sub> = 50mA, I <sub>B</sub> = 2.5mA		0.25		0.25	V
V <sub>CE(SAT)</sub>	I <sub>C</sub> = 300mA, I <sub>B</sub> = 30mA		1.0		1.0	V
V <sub>BE(SAT)</sub>	I <sub>C</sub> = 50mA, I <sub>B</sub> = 2.5mA		1.1		1.1	V
V <sub>BE(SAT)</sub>	I <sub>C</sub> = 300mA, I <sub>B</sub> = 30mA		2.0		2.0	V
V <sub>BE(ON)</sub>	V <sub>CE</sub> = 10V, I <sub>C</sub> = 2.0mA	0.5	0.8	0.5	0.8	V
h <sub>FE</sub>	V <sub>CE</sub> = 10V, I <sub>C</sub> = 2.0mA	80		200		
h <sub>FE</sub>	V <sub>CE</sub> = 1.0V, I <sub>C</sub> = 50mA	100	300	250	500	
h <sub>FE</sub>	V <sub>CE</sub> = 5.0V, I <sub>C</sub> = 300mA	40		75		
C <sub>ob</sub>	V <sub>CB</sub> = 10V, I <sub>E</sub> = 0, f = 1.0MHz		8.0		8.0	pF
C <sub>ib</sub>	V <sub>EB</sub> = 0.5V, I <sub>C</sub> = 0, f = 1.0MHz		35		35	pF
h <sub>fe</sub>	V <sub>CE</sub> = 10V, I <sub>C</sub> = 2.0mA, f = 1.0kHz	80	450	200	750	
f <sub>T</sub>	V <sub>CE</sub> = 10V, I <sub>C</sub> = 2.0mA		250 TYP		250 TYP	MHz

# JEDEC TO-92 CASE - MECHANICAL OUTLINE



All Dimensions in Inches (mm).

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### 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

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### DESIGNER SUPPORT/SERVICES

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

- Free quick ship samples (2<sup>nd</sup> 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

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### 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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### CONTACT US

#### Corporate Headquarters & Customer Support Team

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