

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

145 Adams Avenue, Hauppauge, NY 11788 USA  
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Manufacturers of World Class Discrete Semiconductors

2N4264

NPN SILICON TRANSISTOR

JEDEC TO-92 CASE

## DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N4264 type is a Silicon NPN Transistors designed for high speed switching applications.

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

	SYMBOL		UNITS
Collector-Base Voltage	V <sub>CB0</sub>	30	V
Collector-Emitter Voltage	V <sub>CEO</sub>	15	V
Emitter-Base Voltage	V <sub>EBO</sub>	6.0	V
Collector Current	I <sub>C</sub>	200	mA
Power Dissipation	P <sub>D</sub>	625	mW
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-55 to +150	°C
Thermal Resistance	θ <sub>JA</sub>	200	°C/W

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I <sub>CEV</sub>	V <sub>CE</sub> = 12V, V <sub>BE(OFF)</sub> = 0.25V		0.1	uA
I <sub>CEV</sub>	V <sub>CE</sub> = 12V, V <sub>BE(OFF)</sub> = 0.25V, T <sub>A</sub> = 100°C		10	uA
BV <sub>CEO</sub>	I <sub>C</sub> = 1.0mA	15		V
BV <sub>CB0</sub>	I <sub>C</sub> = 10uA,	20		V
BV <sub>EBO</sub>	I <sub>E</sub> = 10uA	6.0		V
V <sub>CE(SAT)</sub>	I <sub>C</sub> = 10mA, I <sub>B</sub> = 1.0mA		0.22	V
V <sub>CE(SAT)</sub>	I <sub>C</sub> = 100mA, I <sub>B</sub> = 10mA		0.35	V
V <sub>BE(SAT)</sub>	I <sub>C</sub> = 10mA, I <sub>B</sub> = 1.0mA	0.65	0.80	V
V <sub>BE(SAT)</sub>	I <sub>C</sub> = 100mA, I <sub>B</sub> = 10mA	0.75	0.95	V
h <sub>FE</sub>	V <sub>CE</sub> = 1.0V, I <sub>C</sub> = 1.0mA	25		-
h <sub>FE</sub>	V <sub>CE</sub> = 1.0V, I <sub>C</sub> = 10mA	40	160	-
h <sub>FE</sub>	V <sub>CE</sub> = 1.0V, I <sub>C</sub> = 30mA	40		-
h <sub>FE</sub>	V <sub>CE</sub> = 1.0V, I <sub>C</sub> = 100mA	30		-
h <sub>FE</sub>	V <sub>CE</sub> = 1.0V, I <sub>C</sub> = 200mA	20		-
f <sub>T</sub>	V <sub>CE</sub> = 10V, I <sub>C</sub> = 10mA, f = 100MHz	350		MHz
C <sub>ib</sub>	V <sub>BE</sub> = 0.5V, I <sub>C</sub> = 0, f = 1.0MHz		8.0	pF
C <sub>ob</sub>	V <sub>CB</sub> = 5.0V, I <sub>E</sub> = 0, f = 1.0MHz		4.0	pF

(Continued on Reverse Side)

ELECTRICAL CHARACTERISTICS (Continued)

<u>SYMBOL</u>	<u>TEST CONDITIONS</u>	<u>MIN</u>	<u>MAX</u>	<u>UNITS</u>
$t_d$	$V_{CC} = 10V, V_{BE(OFF)} = 2.0V, I_C = 100mA, I_{B1} = 10mA$		8.0	ns
$t_r$	$V_{CC} = 10V, V_{BE(OFF)} = 2.0V, I_C = 100mA, I_{B1} = 10mA$		15	ns
$t_s$	$V_{CC} = 10V, I_C = 10mA, I_{B1} = I_{B2} = 10mA$		20	ns
$t_f$	$V_{CC} = 10V, I_C = 100mA, I_{B1} = I_{B2} = 10mA$		15	ns
$t_{on}$	$V_{CC} = 3.0V, V_{BE(OFF)} = 1.5V, I_C = 10mA, I_{B1} = 3.0mA$		25	ns
$t_{off}$	$V_{CC} = 3.0V, I_C = 10mA, I_{B1} = 3.0mA, I_{B2} = 1.5mA$		35	ns
$Q_T$	$V_{CC} = 3.0V, I_C = 10mA, I_B = 1.0mA$		80	pC

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

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## 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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