

145 Adams Avenue, Hauppauge, NY 11788 USA Tel: (631) 435-1110 • Fax: (631) 435-1824

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 (TA = 25°C)

	<u>SYMBOL</u>		<u>UNITS</u>
Collector-Base Voltage	$v_{\sf CBO}$	30	V
Collector-Emitter Voltage	V _{CEO}	15	V
Emitter-Base Voltage	V_{EBO}	6.0	V
Collector Current	^l C	200	mA
Power Dissipation	P_{D}	625	mW
Operating and Storage			
Junction Temperature	T_{J}, T_{stg}	-55 to +150	oC
Thermal Resistance	θЈА	200	°C/W

ELECTRICAL CHARACTERISTICS $(T_A = 25^{\circ}C)$ unless otherwise noted)

<u>SYMBOL</u>	TEST CONDITIONS	<u>MIN</u>	MAX	<u>UNITS</u>
I _{CEV}	$V_{CE} = 12V$, $V_{BE(OFF)} = 0.25V$		0.1	uA
I _{CEV}	$V_{CE} = 12V$, $V_{BE}(OFF) = 0.25V$, $T_A = 100^{\circ}C$		10	uA
BVCEO	$I_C = 1.0 \text{mA}$	15		٧
BV _{CBO}	$I_C = 10uA$,	20		٧
BV _{EBO}	I _E = 10uA	6.0		V
V _{CE(SAT)}	$I_C = 10 \text{mA}, I_B = 1.0 \text{mA}$		0.22	٧
VCE(SAT)	$I_C = 100 \text{mA}$, $I_B = 10 \text{mA}$		0.35	V
V _{BE} (SAT)	$I_C = 10 \text{mA}, I_B = 1.0 \text{mA}$	0.65	0.80	٧
V _{BE} (SAT)	$I_C = 100 \text{mA}$, $I_B = 10 \text{mA}$	0.75	0.95	٧
hFE	$V_{CE} = 1.0V$, $I_{C} = 1.0mA$	25		-
h _{FE}	$V_{CE} = 1.0V, I_{C} = 10mA$	40	160	•
hFE	$V_{CE} = 1.0V, I_{C} = 30mA$	40		-
h _{FE}	$V_{CE} = 1.0V, I_{C} = 100mA$	30		-
h _{FE}	$V_{CE} = 1.0V, I_{C} = 200mA$	20		-
f _T	$V_{CE} = 10V$, $I_{C} = 10mA$, $f = 100MHz$	350		MHz
c _{ib} .	$V_{BE} = 0.5V$, $I_{C} = 0$, $f = 1.0MHz$		8.0	pF
C _{ob}	$V_{CB} = 5.0V$, $I_E = 0$, $f = 1.0MHz$		4.0	pF

(Continued on Reverse Side)

ELECTRICAL CHARACTERISTICS (Continued)

SYMBOL	TEST CONDITIONS	MIN	MAX	<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
toff	$V_{CC} = 3.0V$, $I_C = 10mA$, $I_{B1} = 3.0mA$, $I_{B2} = 1.5mA$		35	ns
o_T	$V_{CC} = 3.0V$, $I_C = 10mA$, $I_B = 1.0mA$		80	рC



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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

DESIGNER SUPPORT/SERVICES

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

- Free guick 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

Corporate Headquarters & Customer Support Team

Central Semiconductor Corp. 145 Adams Avenue Hauppauge, NY 11788 USA

Main Tel: (631) 435-1110 Main Fax: (631) 435-1824

Support Team Fax: (631) 435-3388

www.centralsemi.com

Worldwide Field Representatives: www.centralsemi.com/wwreps

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