

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

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Manufacturers of World Class Discrete Semiconductors

2N5793

2N5794

NPN SILICON DUAL TRANSISTOR

JEDEC TO-78 CASE

## DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N5793, 2N5794 types are silicon NPN dual transistors manufactured by the epitaxial planar process utilizing two individual chips mounted in a hermetically sealed metal case designed for differential amplifier applications.

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

	SYMBOL		UNIT
Collector-Base Voltage	V <sub>CB0</sub>	75	V
Collector-Emitter Voltage	V <sub>CEO</sub>	40	V
Emitter-Base Voltage	V <sub>EBO</sub>	6.0	V
Collector Current	I <sub>C</sub>	600	mA
Power Dissipation (one die)	P <sub>D</sub>	500	mW
Power Dissipation (both dice)	P <sub>D</sub>	600	mW
Power Dissipation (one die, T <sub>C</sub> =25°C)	P <sub>D</sub>	1200	mW
Power Dissipation (both dice, T <sub>C</sub> =25°C)	P <sub>D</sub>	2000	mW
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>STG</sub>	-65 TO +200	°C

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

SYMBOL	TEST CONDITIONS	2N5793		2N5794		UNIT
		MIN	MAX	MIN	MAX	
I <sub>CB0</sub>	V <sub>CB</sub> =50V		10		10	nA
I <sub>EBO</sub>	V <sub>EB</sub> =4.0V		10		10	nA
I <sub>C1-C2</sub>	V <sub>IC-2C</sub> =±50V		±1.0		±1.0	nA
BV <sub>CB0</sub>	I <sub>C</sub> =10μA	75		75		V
BV <sub>CEO</sub>	I <sub>C</sub> =10mA	40		40		V
BV <sub>EBO</sub>	I <sub>E</sub> =10μA	6.0		6.0		V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =150mA, I <sub>B</sub> =15mA		0.3		0.3	V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =300mA, I <sub>B</sub> =30mA		0.9		0.9	V
V <sub>BE(SAT)</sub>	I <sub>C</sub> =150mA, I <sub>B</sub> =15mA	0.6	1.2	0.6	1.2	V
V <sub>BE(SAT)</sub>	I <sub>C</sub> =300mA, I <sub>B</sub> =30mA	-	1.8	-	1.8	V
h <sub>FE</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =100μA	20	-	35	-	
h <sub>FE</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =1.0mA	25	-	50	-	
h <sub>FE</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =10mA	35	-	75	-	
h <sub>FE</sub>	V <sub>CE</sub> =1.0V, I <sub>C</sub> =150mA	20	-	50	-	
h <sub>FE</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =150mA	40	120	100	300	
h <sub>FE</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =300mA	25	-	40	-	
f <sub>T</sub>	V <sub>CE</sub> =20V, I <sub>C</sub> =20mA, f=100MHz	250		250		MHz
C <sub>ob</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=100kHz		8.0		8.0	pF
C <sub>ib</sub>	V <sub>EB</sub> =0.5V, I <sub>C</sub> =0, f=100kHz		25		25	pF
t <sub>on</sub>	V <sub>CC</sub> =30V, V <sub>BE(OFF)</sub> =0.5V, I <sub>C</sub> =150mA, I <sub>B1</sub> =15mA		40		40	ns
t <sub>off</sub>	V <sub>CC</sub> =30V, I <sub>C</sub> =150mA, I <sub>B1</sub> =I <sub>B2</sub> =15mA		300		300	ns

## 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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### CONTACT US

#### Corporate Headquarters & Customer Support Team

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**Worldwide Distributors:**  
[www.centalsemi.com/wwdistributors](http://www.centalsemi.com/wwdistributors)

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For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: [www.centalsemi.com/terms](http://www.centalsemi.com/terms)



http://www.centralsemi.com

# Product End of Life Notification

PDN ID:	PDN01061
Notification Date:	1/17/17
Last Buy Date:	7/17/17
Last Shipment Date	1/17/18

Summary: All transistors manufactured in the TO-78 package are discontinued and now classified as End of Life (EOL).

Although Central Semiconductor Corp. makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by various manufacturers, it is an accepted industry practice to discontinue certain devices when customer demand falls below a minimum level of sustainability. Accordingly, the following product(s) have been transitioned to End of Life status as part of Central's Product Management Process. Any replacement product will be noted below. The effective date for placing the last purchase order will be six(6) months from the date of this notice and twelve(12) months from the notice date for final shipments; this may be extended if inventory is available.

<u>Central Part Number</u>	<u>Replacement</u>
CEN876	N/A
CEN894	N/A
CEN895	N/A
CEN896	N/A
CEN911	N/A
CEN947	N/A
CEN955 W/DATA	N/A
MD2219A	N/A
MD2369	N/A
MD2369A	N/A
MD2369B	N/A
MD2905	N/A
MD2905A	N/A
MD5179	N/A
MD7000	N/A
MD7001	N/A
MD7003	N/A
MD7003A	N/A
MD7003B	N/A
MD8002	N/A
MD8003	N/A
MD918	N/A
MD918A	N/A
MD918B	N/A
MD984	N/A
2N2060	N/A
2N2060A	N/A
2N2060M	N/A
2N2223	N/A
2N2223A	N/A
2N2453	N/A
2N2453A	N/A
2N2480	N/A
2N2480A	N/A
2N2639	N/A
2N2640	N/A
2N2641	N/A
2N2642	N/A

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DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor Corp. will make every effort to offer life-time buy (LTB) opportunities and/or offer replacement devices to existing customers for discontinued devices, however, one or both may not be possible for all devices. Please contact your local Central Semiconductor sales representative for LTB opportunities/additional information.

# Product End of Life Notification

PDN ID:	PDN01061
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\*\*\* CONTINUED FROM PRIOR PAGE \*\*\*

<u>Central Part Number</u>	<u>Replacement</u>
2N2643	N/A
2N2644	N/A
2N2652	N/A
2N2652A	N/A
2N2720	N/A
2N2721	N/A
2N2722	N/A
2N2903	N/A
2N2903A	N/A
2N2913	N/A
2N2914	N/A
2N2915	N/A
2N2915A	N/A
2N2916	N/A
2N2916A	N/A
2N2917	N/A
2N2918	N/A
2N2919	N/A
2N2919A	N/A
2N2920	N/A
2N2920A	N/A
2N3726	N/A
2N3727	N/A
2N3806	N/A
2N3807	N/A
2N3808	N/A
2N3809	N/A
2N3810	N/A
2N3810A	N/A
2N3811	N/A
2N3811A	N/A
2N4015	N/A
2N4016	N/A
2N4854	N/A
2N4937	N/A
2N4938	N/A
2N4939	N/A
2N5793	N/A
2N5794	N/A
2N5796	N/A
2N5912	N/A
2N6502	N/A

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<http://www.centrasemi.com>

# Product End of Life Notification

<b>PDN ID:</b>	PDN01061
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<b>Last Buy Date:</b>	7/17/17
<b>Last Shipment Date</b>	1/17/18

\*\*\* CONTINUED FROM PRIOR PAGE \*\*\*

**Central Part Number**                      **Replacement**

Central would be happy to assist you by providing additional information or technical data to help locate an alternate source if we have no replacement available. Please email your requests to [engineering@centrasemi.com](mailto:engineering@centrasemi.com).

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