

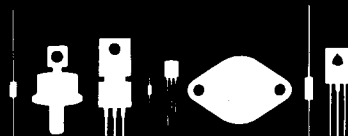
Central  
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145 Adams Avenue  
Hauppauge, New York 11788



SE9300  
SE9301  
SE9302

Silicon NPN Transistor

Darlington Power

JEDEC TO-220 Case

DESCRIPTION

The CENTRAL SEMICONDUCTOR SE9300, 01, 02 are Silicon NPN Epitaxial Base, Monolithic Diffused Resistor Type Darlington Construction Power Transistors designed for audio amplifiers and medium power linear and switching applications.

MAXIMUM RATINGS (T<sub>C</sub>=25°C)

		9300	9301	9302
Collector to Emitter Voltage	V <sub>CEO</sub>	60V	80V	100V
Collector to Base Voltage	V <sub>CBO</sub>	60V	80V	100V
Emitter to Base Voltage	V <sub>EB0</sub>	5V	5V	5V
Collector Current	I <sub>C</sub>	10A	10A	10A
Power Dissipation	P <sub>D</sub>	70W	70W	70W
Operating Junction Temperature	T <sub>J</sub>	-65 to +150°C		
Storage Temperature	T <sub>stg</sub>	-65 to +150°C		

ELECTRICAL CHARACTERISTICS (T<sub>C</sub>=25°C)

Symbol	Test Conditions	Min.	Max.	Unit
I <sub>CBO</sub>	V <sub>CE</sub> =Rated V <sub>CEO</sub>		200	μA
I <sub>EB0</sub>	V <sub>EB</sub> =5.0V		4.0	mA
I <sub>CEO</sub>	V <sub>CE</sub> =0.5xRated V <sub>CEO</sub>		500	μA
V <sub>CEO</sub>	I <sub>C</sub> =100mA	9300 60 9301 80 9302 100		V
V <sub>CE(S)</sub>	I <sub>C</sub> =4.0A, I <sub>B</sub> =16mA		2.0	V
V <sub>CE(S)</sub>	I <sub>C</sub> =7.5A, I <sub>B</sub> =150mA		2.5	V
V <sub>BE(ON)</sub>	V <sub>CE</sub> =3.0V, I <sub>C</sub> =4.0A		2.5	V
V <sub>BE(ON)</sub>	V <sub>CE</sub> =3.0V, I <sub>C</sub> =7.5A		3.0	V
h <sub>FE</sub>	V <sub>CE</sub> =3.0V, I <sub>C</sub> =1.0A	750		-
h <sub>FE</sub>	V <sub>CE</sub> =3.0V, I <sub>C</sub> =4.0A	1,000		-
h <sub>FE</sub>	V <sub>CE</sub> =3.0V, I <sub>C</sub> =7.5A	100		-
h <sub>fe</sub>	V <sub>CE</sub> =3.0V, I <sub>C</sub> =4.0A, f=1.0 MHz	1.0		-



To-220

## 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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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.centrasemi.com>

# Product End of Life Notification

<b>PDN ID:</b>	PDN01050
<b>Notification Date:</b>	8/24/16
<b>Last Buy Date:</b>	2/24/17
<b>Last Shipment Date</b>	8/24/17

Summary: The SE9300 and SE9400 series of NPN and PNP Darlington power transistors in the TO-220 case 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>
SE9300	2N6388
SE9301	2N6388
SE9302	2N6388
SE9400	2N6668
SE9401	2N6668
SE9402	2N6668

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).

**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.