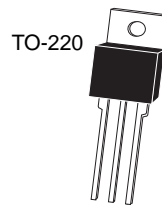
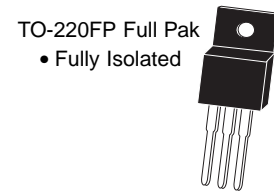


# Power Transistors

## TO-220 Case (Continued)



Standard



TO-220FP Full Pak  
• Fully Isolated

Optional

TYPE NO.		$I_C$	$P_D$	$BV_{CBO}$	$BV_{CEO}$	$h_{FE}$		@ $I_C$	$V_{CE(SAT)}$	@ $I_C$	$f_T$
NPN	PNP	(A) MAX	(W)	(V) MIN	(V) MIN	MIN	MAX	(A)	(V) MAX	(A)	(MHz) MIN
SE9300	SE9400	10	70	60	60	1,000	--	4.0	2.0	4.0	1.0
SE9301	SE9401	10	70	80	80	1,000	--	4.0	2.0	4.0	1.0
SE9302	SE9402	10	70	100	100	1,000	--	4.0	2.0	4.0	1.0
TIP29	TIP30	1.0	30	40	40	15	75	1.0	0.7	1.0	3.0
TIP29A	TIP30A	1.0	30	60	60	15	75	1.0	0.7	1.0	3.0
TIP29B	TIP30B	1.0	30	80	80	15	75	1.0	0.7	1.0	3.0
TIP29C	TIP30C	1.0	30	100	100	15	75	1.0	0.7	1.0	3.0
TIP31	TIP32	3.0	40	40	40	10	50	3.0	1.2	3.0	3.0
TIP31A	TIP32A	3.0	40	60	60	10	50	3.0	1.2	3.0	3.0
TIP31B	TIP32B	3.0	40	80	80	10	50	3.0	1.2	3.0	3.0
TIP31C	TIP32C	3.0	40	100	100	10	50	3.0	1.2	3.0	3.0
TIP41	TIP42	6.0	65	40	40	15	75	3.0	1.5	6.0	3.0
TIP41A	TIP42A	6.0	65	60	60	15	75	3.0	1.5	6.0	3.0
TIP41B	TIP42B	6.0	65	80	80	15	75	3.0	1.5	6.0	3.0
TIP41C	TIP42C	6.0	65	100	100	15	75	3.0	1.5	6.0	3.0
TIP47		1.0	40	350	250	30	150	0.3	1.0	1.0	10
TIP48		1.0	40	400	300	30	150	0.3	1.0	1.0	10
TIP49		1.0	40	450	350	30	150	0.3	1.0	1.0	10
TIP50		1.0	40	500	400	30	150	0.3	1.0	1.0	10
TIP100	TIP105	8.0	80	60	60	1,000	20,000	3.0	2.0	3.0	4.0
TIP101	TIP106	8.0	80	80	80	1,000	20,000	3.0	2.0	3.0	4.0
TIP102	TIP107	8.0	80	100	100	1,000	20,000	3.0	2.0	3.0	4.0
TIP110	TIP115	2.0	50	60	60	500	--	2.0	2.5	2.0	25
TIP111	TIP116	2.0	50	80	80	500	--	2.0	2.5	2.0	25
TIP112	TIP117	2.0	50	100	100	500	--	2.0	2.5	2.0	25
TIP120	TIP125	5.0	65	60	60	1,000	--	3.0	2.0	3.0	4.0
TIP121	TIP126	5.0	65	80	80	1,000	--	3.0	2.0	3.0	4.0
TIP122	TIP127	5.0	65	100	100	1,000	--	3.0	2.0	3.0	4.0
TIP130	TIP135	8.0	70	60	60	1,000	15,000	4.0	2.0	4.0	--
TIP131	TIP136	8.0	70	80	80	1,000	15,000	4.0	2.0	4.0	--
TIP132	TIP137	8.0	70	100	100	1,000	15,000	4.0	2.0	4.0	--

Shaded areas indicate Darlingtons.

## 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

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



<http://www.centrasemi.com>

# Product End of Life Notification

<b>PDN ID:</b>	PDN01044
<b>Notification Date:</b>	8/15/16
<b>Last Buy Date:</b>	2/15/17
<b>Last Shipment Date</b>	8/15/17

Summary: The TIP130 series of NPN and PNP Darlington power transistors, with the exception of part TIP132 and TIP137, is 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>
TIP130	TIP132
TIP131	TIP132
TIP135	TIP137
TIP136	TIP137

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.