

CZT31C NPN
CZT32C PNP

**SURFACE MOUNT SILICON
COMPLEMENTARY
POWER TRANSISTORS**

**POWER
223™**



SOT-223 CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CZT31C and CZT32C are silicon surface mount epoxy molded complementary transistors manufactured by the epitaxial base process, designed for surface mounted power amplifier applications up to 3.0 amps.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: ($T_A=25^\circ\text{C}$)

Collector-Base Voltage	V_{CBO}	100	V
Collector-Emitter Voltage	V_{CEO}	100	V
Emitter-Base Voltage	V_{EBO}	5.0	V
Continuous Collector Current	I_C	3.0	A
Peak Collector Current	I_{CM}	6.0	A
Continuous Base Current	I_B	1.0	A
Power Dissipation	P_D	2.0	W
Power Dissipation ($T_C=25^\circ\text{C}$)	P_D	10	W
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	$^\circ\text{C}$
Thermal Resistance	θ_{JA}	62.5	$^\circ\text{C/W}$
Thermal Resistance	θ_{JC}	12.5	$^\circ\text{C/W}$

SYMBOL

V_{CBO}	100	V
V_{CEO}	100	V
V_{EBO}	5.0	V
I_C	3.0	A
I_{CM}	6.0	A
I_B	1.0	A
P_D	2.0	W
P_D	10	W
T_J, T_{stg}	-65 to +150	$^\circ\text{C}$
θ_{JA}	62.5	$^\circ\text{C/W}$
θ_{JC}	12.5	$^\circ\text{C/W}$

UNITS

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

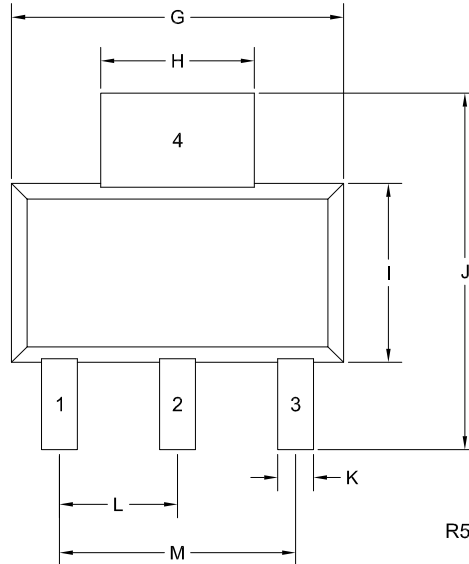
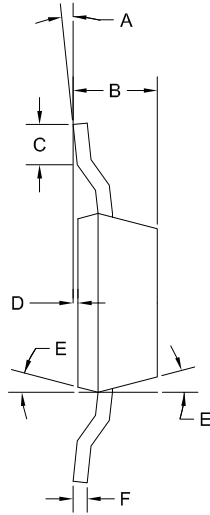
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{CES}	$V_{CE}=100\text{V}$		200	μA
I_{CEO}	$V_{CE}=60\text{V}$		300	μA
I_{EBO}	$V_{EB}=5.0\text{V}$		1.0	mA
BV_{CEO}	$I_C=30\text{mA}$	100		V
$V_{CE(SAT)}$	$I_C=3.0\text{A}, I_B=375\text{mA}$		1.2	V
$V_{BE(ON)}$	$V_{CE}=4.0\text{V}, I_C=3.0\text{A}$		1.8	V
h_{FE}	$V_{CE}=4.0\text{V}, I_C=1.0\text{A}$	25		
h_{FE}	$V_{CE}=4.0\text{V}, I_C=3.0\text{A}$	10	100	
f_T	$V_{CE}=10\text{V}, I_C=500\text{mA}, f=1.0\text{MHz}$	3.0		MHz

CZT31C NPN
CZT32C PNP



**SURFACE MOUNT SILICON
COMPLEMENTARY
POWER TRANSISTORS**

SOT-223 CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) Base
- 2) Collector
- 3) Emitter
- 4) Collector

MARKING:

FULL PART NUMBER

SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0°	10°	0°	10°
B	0.059	0.071	1.50	1.80
C	0.018	---	0.45	---
D	0.000	0.004	0.00	0.10
E	10°		10°	
F	0.009	0.014	0.23	0.35
G	0.248	0.270	6.30	6.85
H	0.114	0.122	2.90	3.10
I	0.130	0.146	3.30	3.70
J	0.264	0.287	6.70	7.30
K	0.024	0.033	0.60	0.85
L	0.091		2.30	
M	0.181		4.60	

SOT-223 (REV: R5)

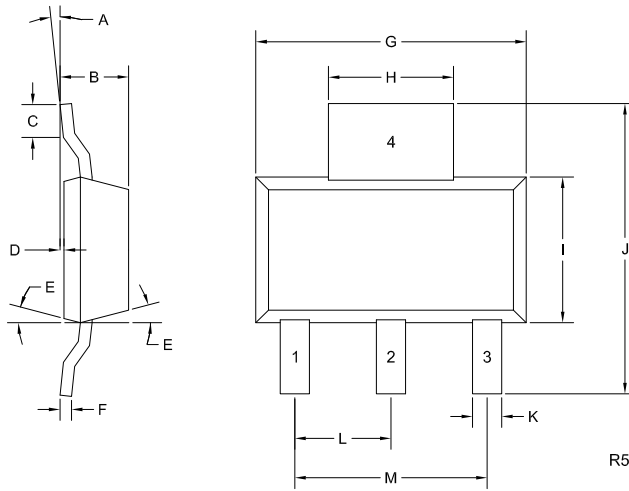
R6 (9-May 2019)

Package Details

SOT-223 Case



Mechanical Drawing



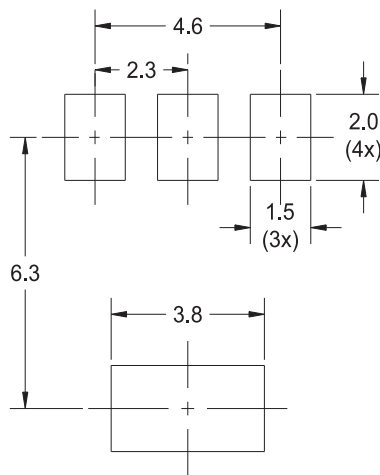
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0°	10°	0°	10°
B	0.059	0.071	1.50	1.80
C	0.018	---	0.45	---
D	0.000	0.004	0.00	0.10
E	10°		10°	
F	0.009	0.014	0.23	0.35
G	0.248	0.270	6.30	6.85
H	0.114	0.122	2.90	3.10
I	0.130	0.146	3.30	3.70
J	0.264	0.287	6.70	7.30
K	0.024	0.033	0.60	0.85
L	0.091		2.30	
M	0.181		4.60	

SOT-223 (REV: R5)

Lead Code:
Reference individual device datasheet.

Part Marking: Full Part Number

Mounting Pad Geometry (Dimensions in mm)



R1

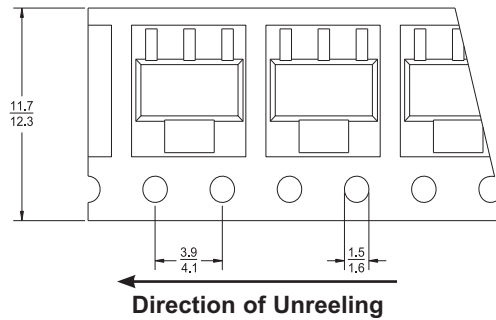
Package Details

SOT-223 Case



Tape Dimensions and Orientation (Dimensions in mm)

Tape Width: 12mm



Devices are taped in accordance with Electronic Industries Association Standard EIA-481-D

Packaging Base

7" Reel = 1,000 pcs.

Reel Labeling Information

Each reel is labeled with the following information:

Central Part Number, Customer Part Number, Purchase Order Number, Quantity, Lot Number, Date Code and Ship Date.

Reel Packing Information

Reel Size	Reels per Box (Maximum)	Parts per Box (Maximum)	Box Dimensions		Shipping Weight (Max.)	
			INCH	CM	LB	KG
7"	6	6,000	9x9x5	23x23x13	4	2
	13	13,000	9x9x9	23x23x23	7	4
	32	32,000	21x9x9	53x23x23	16	8
	82	82,000	27x9x17	69x23x43	43	20

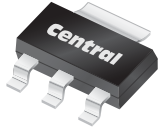
Ordering Information

- For devices taped and reeled on 7" reels, add TR suffix to part number.
- All SMDs are available in small quantities for prototype and manual placement applications.

R6 (30-April 2019)

Material Composition Specification

SOT-223 Case



Eutectic Die Attach

Device average mass 113 mg (+/-10%)

Component	Material	Material		Substance	CAS No.	Substance		
		(%wt)	(mg)			(%wt)	(mg)	(ppm)
active device	doped Si	0.95%	1.072	Si	7440-21-3	0.95%	1.072	9,487
bond wire	gold or copper	0.05%	0.06	Au	7440-57-5	0.05%	0.06	531
				Cu	7440-50-8			
leadframe	copper w/ silver plating	40.55%	45.82	Cu	7440-50-8	40.13%	45.35	401,327
				Fe	7439-89-6	0.04%	0.05	442
				P	7723-14-0	0.01%	0.015	113
				Ag	7440-22-4	0.36%	0.402	3,558
				silica	7631-86-9	41.24%	46.6	412,389
encapsulation*	EMC	56.48%	63.82	epoxy resin	Proprietary	13.43%	15.18	134,336
				Sb ₂ O ₃	1309-64-4	1.11%	1.256	11,115
				TBBA	79-94-7	0.55%	0.627	5,549
				carbon black	1333-86-4	0.14%	0.158	1,398
				silica	60676-86-0	40.1%	45.31	401,000
	EMC GREEN	56.48%	63.82	epoxy resin	29690-82-2	5.22%	5.904	52,248
				phenol resin	9003-35-4	5.22%	5.904	52,248
				carbon black	1333-86-4	0.28%	0.32	2,832
				metal hydroxide	1309-42-8	5.65%	6.38	56,460
				Sn	7440-31-5	1.58%	1.785	15,796
plating**	tin/lead process	1.97%	2.23	Pb	7439-92-1	0.39%	0.445	3,938
	matte tin	1.97%	2.23	Sn	7440-31-5	1.97%	2.23	19,735

Solder Die Attach

Device average mass 115 mg (+/-10%)

Component	Material	Material		Substance	CAS No.	Substance		
		(%wt)	(mg)			(%wt)	(mg)	(ppm)
active device	doped Si	1.25%	1.432	Si	7440-21-3	1.25%	1.432	12,452
bond wire	gold or copper	0.11%	0.125	Au	7440-57-5	0.11%	0.125	1,087
				Cu	7440-50-8			
leadframe	copper w/ silver plating	44.92%	51.66	Cu	7440-50-8	44.56%	51.24	445,565
				Fe	7439-89-6	0.05%	0.057	496
				P	7723-14-0	0.02%	0.02	174
				Ag	7440-22-4	0.3%	0.345	3,000
				Pb	7439-92-1	0.32%	0.37	3,217
die attach	high temperature solder paste	0.34%	0.39	Sn	7440-31-5	0.02%	0.02	174
				Ag	7440-22-4	0.001%	0.001	9
				silica	7631-86-9	37.56%	43.196	375,624
encapsulation*	EMC	51.44%	59.16	epoxy resin	Proprietary	12.23%	14.07	122,350
				Sb ₂ O ₃	1309-64-4	1.01%	1.165	10,131
				TBBA	79-94-7	0.51%	0.582	5,061
				carbon black	1333-86-4	0.13%	0.147	1,278
				silica	60676-86-0	36.53%	42.004	365,259
	EMC GREEN	51.44%	59.16	epoxy resin	29690-82-2	4.76%	5.473	47,592
				phenol resin	9003-35-4	4.76%	5.473	47,592
				carbon black	1333-86-4	0.26%	0.297	2,583
				metal hydroxide	1309-42-8	5.14%	5.913	51,418
				Sn	7440-31-5	1.55%	1.785	15,522
plating**	tin/lead process	1.94%	2.23	Pb	7439-92-1	0.39%	0.445	3,870
	matte tin	1.94%	2.23	Sn	7440-31-5	1.94%	2.23	19,392

*EMC GREEN molding compound is Halogen-Free.

**For Lead Free plating, add suffix "PB FREE" to part number.

For Tin/Lead plating, add suffix "TIN/LEAD" to part number.

No suffix designation allows for the supply of either lead-free or tin/lead plated product depending on availability.

Disclaimer

The information provided in this Material Composition data sheet is, to the best of our knowledge, correct. However, there is no guarantee to completeness or accuracy, as some information is derived from data sources outside the company.

R10 (16-July 2018)

Material Composition Specification

SOT-223 Case



Eutectic Die Attach

Device average mass 113 mg (+/-10%)

Component	Material	Material		Substance	CAS No.	Substance		
		(%wt)	(mg)			(%wt)	(mg)	(ppm)
active device	doped Si	0.95%	1.072	Si	7440-21-3	0.95%	1.072	9,487
bond wire	gold or copper	0.05%	0.06	Au	7440-57-5	0.05%	0.06	531
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Solder Die Attach

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				P	7723-14-0	0.02%	0.02	174
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				Sb ₂ O ₃	1309-64-4	1.01%	1.165	10,131
				TBBA	79-94-7	0.51%	0.582	5,061
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				silica	60676-86-0	36.53%	42.004	365,259
	EMC GREEN	51.44%	59.16	epoxy resin	29690-82-2	4.76%	5.473	47,592
				phenol resin	9003-35-4	4.76%	5.473	47,592
				carbon black	1333-86-4	0.26%	0.297	2,583
				metal hydroxide	1309-42-8	5.14%	5.913	51,418
				Sn	7440-31-5	1.55%	1.785	15,522
plating**	tin/lead process	1.94%	2.23	Pb	7439-92-1	0.39%	0.445	3,870
	matte tin	1.94%	2.23	Sn	7440-31-5	1.94%	2.23	19,392

*EMC GREEN molding compound is Halogen-Free.

**For Lead Free plating, add suffix "PB FREE" to part number.

For Tin/Lead plating, add suffix "TIN/LEAD" to part number.

No suffix designation allows for the supply of either lead-free or tin/lead plated product depending on availability.

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R10 (16-July 2018)

OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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 quick 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.centrasemi.com

Worldwide Field Representatives:
www.centrasemi.com/wwreps

Worldwide Distributors:
www.centrasemi.com/wwdistributors

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

Product End of Life Notification

PDN ID:	PDN01247
Notification Date:	9/01/22
Last Buy Date:	3/01/23
Last Shipment Date	9/01/23

Summary: The following transistors are discontinued and now classified as of 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 other 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 ongoing Product Portfolio Management. Any replacement products are noted below. The effective date for placing last purchase orders will be six (6) months from the date of this notice and twelve (12) months from the notice date for final shipments, and minimum order quantities may apply. The last purchase and shipment dates may be extended if inventory is available.

*** All Plating types (PBFREE, TIN/LEAD) for each item listed are included in this notice.**

Central Part Number	Suggested Replacement
BCY79-VIII	N/A
CEN853	N/A
CZT32C BK	N/A
CZT32C TR	N/A
2N3583	N/A
2N3584	N/A
2N3585	N/A
2N3738	N/A
2N3740	N/A
2N3741	N/A
2N3741A	N/A
2N4299	N/A
2N4900	N/A
2N6107	N/A
2N6317	N/A
2N6318	N/A
2N6467	N/A
2N6468	N/A

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. If you would like assistance, please visit <https://my.centrasemi.com/submit-inquiry?type=ER> to submit an online inquiry.

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:	PDN01250
Notification Date:	2/10/23
Last Buy Date:	Stock Only
Last Shipment Date:	Stock Only

<https://www.centrasemi.com>

Please be advised that Central Semiconductor must immediately discontinue the product(s) listed in the attached PDN notice. Orders can only be accepted for products with available inventory on hand.

You may have purchased one or more of the products listed. Please do not hesitate to contact your local Central Semiconductor sales representative with any questions or needs you may have. Central regrets any inconvenience this may cause.

Sincerely,

Central Semiconductor, LLC

DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor 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.



https://www.centralsemi.com

Product End of Life Notification

PDN ID:	PDN01250
Notification Date:	2/10/23
Last Buy Date:	Stock Only
Last Shipment Date	Stock Only

Summary: The following power transistors are discontinued and now classified as of End of Life (EOL). NOTE: If inventory has been depleted, some devices may be available on special order; please contact your Central salesperson, manufacturer's rep, franchised distributor, or inquiry@centralsemi.com.

Although Central Semiconductor makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by other 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 ongoing Product Portfolio Management. Any replacement products are noted below. The effective date for placing last purchase orders will be six (6) months from the date of this notice and twelve (12) months from the notice date for final shipments, and minimum order quantities may apply. The last purchase and shipment dates may be extended if inventory is available.

*** All Plating types (PBFREE,TIN/LEAD) for each item listed are included in this notice.**

Central Part Number	Suggested Replacement
BDW51	N/A
BDW51A	N/A
BDW51B	N/A
BDW51C	N/A
BDW52	N/A
BDW52A	N/A
BDW52B	N/A
BDW52C	N/A
BDW94B	N/A
BDX20	N/A
BDX54	N/A
BDX54B	N/A
BDX54C	N/A
BDX54E	N/A
BDX85	N/A
BDX85A	N/A
BDX85B	N/A
BDX85C	N/A
BDX87	N/A
BDX87A	N/A
BDX87B	N/A
BDX87C	N/A
BDY90	N/A
BD135	N/A
BD135 SL	N/A
BD135-10 SL	N/A
BD135-16	N/A
BD135-16 SL	N/A
BD136	N/A
BD136-10	N/A
BD136-10 SL	N/A
BD136-16	N/A
BD136-16 SL	N/A
BD137	N/A

*** CONTINUED ***

DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor 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.



https://www.centalsemi.com

Product End of Life Notification

PDN ID:	PDN01250
Notification Date:	2/10/23
Last Buy Date:	Stock Only
Last Shipment Date	Stock Only

*** CONTINUED FROM PRIOR PAGE ***

* All Plating types (PBFREE,TIN/LEAD) for each item listed are included in this notice.

<u>Central Part Number</u>	<u>Suggested Replacement</u>
BD137-10	N/A
BD137-10 SL	N/A
BD137-16	N/A
BD138	N/A
BD138-10	N/A
BD138-10 SL	N/A
BD138-16	N/A
BD138-16 SL	N/A
BD139	N/A
BD139-10	N/A
BD139-10 SL	N/A
BD139-16	N/A
BD139-16 SL	N/A
BD140	N/A
BD140-10	N/A
BD140-10 SL	N/A
BD140-16	N/A
BD140-16 SL	N/A
BD157	N/A
BD158	N/A
BD159	N/A
BD175	N/A
BD176	N/A
BD177	N/A
BD178	N/A
BD179	N/A
BD180	N/A
BD201	N/A
BD204	N/A
BD233	N/A
BD234	N/A
BD235	N/A
BD236	N/A
BD237	N/A
BD238	N/A
BD238 SL	N/A
BD433	N/A
BD434	N/A
BD437	N/A
BD438	N/A
BD439	N/A
BD440	N/A
BD441	N/A

*** CONTINUED ***

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Central Part Number	Suggested Replacement
BD442	N/A
BD537	N/A
BD538	N/A
BD675	N/A
BD675A	N/A
BD676	N/A
BD676A	N/A
BD676A SL	N/A
BD677	N/A
BD677A	N/A
BD678	N/A
BD678A	N/A
BD679	N/A
BD679A	N/A
BD679A SL	N/A
BD680	N/A
BD680A	N/A
BD680A SL	N/A
BD681	N/A
BD681 SL	N/A
BD682	N/A
BD682 SL	N/A
BD683	N/A
BD683 SL	N/A
BD908	N/A
BF457	N/A
BF458	N/A
BF459	N/A
BF459 SL	N/A
BF469	N/A
BF471	N/A
BF472	N/A
BUW34	N/A
BUW35	N/A
BUW36	N/A
BUW44	N/A
BUW45	N/A
BUW46	N/A
BUX43	N/A
BUX44	N/A
BUX47	N/A
BUX48	N/A
BUX80	N/A

*** CONTINUED ***

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Central Part Number	Suggested Replacement
BUY69A	N/A
BUY69B	N/A
BUY69C	N/A
BU408	N/A
BU409	N/A
CEN1025	N/A
CEN1037	N/A
CEN1063	N/A
CEN1092	N/A
CEN1102	N/A
CEN1111	N/A
CEN1177	N/A
CEN1247	N/A
CEN1306	N/A
CEN1323	N/A
CEN1328	N/A
CEN1364 SL	N/A
CEN1378 SL	N/A
CEN1391	N/A
CEN1396	N/A
CEN1406	N/A
CEN1416	N/A
CEN1439	N/A
CEN1450	N/A
CEN496	N/A
CEN537	N/A
CEN591	N/A
CEN596	N/A
CEN644	N/A
CEN671	N/A
CEN698-1	N/A
CEN698-2	N/A
CEN774	N/A
CEN821	N/A
CEN844	N/A
CEN925	N/A
CEN951	N/A
CEN961	N/A
CEN972	N/A
CEN992	N/A
CM3441	N/A
CP166-BUP54-WN	N/A
CZT122 BK	N/A

*** CONTINUED ***

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Central Part Number	Suggested Replacement
CZT122 TR	N/A
CZT31C BK	N/A
CZT31C TR	N/A
D44C12	N/A
D44E1	N/A
D44E3	N/A
D45E3	N/A
D45H8	N/A
MJE13003	N/A
MJE13003 SL	N/A
MJE13005	N/A
MJE13005 SL	N/A
MJE13006	N/A
MJE13008	N/A
MJE13009	N/A
MJE15030	N/A
MJE15031	N/A
MJE170	N/A
MJE171	N/A
MJE172	N/A
MJE180	N/A
MJE181	N/A
MJE182	N/A
MJE200	N/A
MJE210	N/A
MJE220	N/A
MJE221	N/A
MJE222	N/A
MJE223	N/A
MJE224	N/A
MJE225	N/A
MJE230	N/A
MJE231	N/A
MJE232	N/A
MJE233	N/A
MJE234	N/A
MJE235	N/A
MJE2360T	N/A
MJE240	N/A
MJE241	N/A
MJE242	N/A
MJE243	N/A
MJE244	N/A

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Central Part Number	Suggested Replacement
MJE250	N/A
MJE251	N/A
MJE252	N/A
MJE253	N/A
MJE254	N/A
MJE2801T	N/A
MJE2901T	N/A
MJE2955T	N/A
MJE340	N/A
MJE341	N/A
MJE344	N/A
MJE344 SL	N/A
MJE3440	N/A
MJE350	N/A
MJE370	N/A
MJE371	N/A
MJE520	N/A
MJE521	N/A
MJE700	N/A
MJE701	N/A
MJE702	N/A
MJE703	N/A
MJE710	N/A
MJE711	N/A
MJE712	N/A
MJE720	N/A
MJE721	N/A
MJE722	N/A
MJE800	N/A
MJE800T	N/A
MJE801	N/A
MJE801T	N/A
MJE802	N/A
MJE802T	N/A
MJE803	N/A
MJE803T	N/A
MJ1000	N/A
MJ1001	N/A
MJ10012	N/A
MJ11011	N/A
MJ11012	N/A
MJ11013	N/A
MJ11014	N/A

*** CONTINUED ***

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Central Part Number	Suggested Replacement
MJ11015	N/A
MJ11016	N/A
MJ2501	N/A
MJ2955	N/A
MJ3000	N/A
MJ3001	N/A
MJ4033	N/A
MJ4035	N/A
MJ410	N/A
MJ802	N/A
MJ901	N/A
PMD10K100	N/A
PMD10K40	N/A
PMD10K60	N/A
PMD10K80	N/A
PMD12K100	N/A
PMD12K40	N/A
PMD12K60	N/A
PMD12K80	N/A
PMD13K100	N/A
PMD16K100	N/A
PMD16K60	N/A
PMD16K80	N/A
PMD1601K	N/A
PMD1602K	N/A
PMD1603K	N/A
PMD17K100	N/A
PMD17K60	N/A
PMD17K80	N/A
PMD1701K	N/A
PMD1702K	N/A
PMD1703K	N/A
PMD18K100	N/A
PMD18K60	N/A
PMD18K80	N/A
PMD19K100	N/A
PMD19K60	N/A
PMD19K80	N/A
SE9303	N/A
SE9304	N/A
SE9305	N/A
TIP102	N/A
TIP107	N/A

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Central Part Number	Suggested Replacement
TIP107 SL	N/A
TIP117	N/A
TIP117 SL	N/A
TIP122	N/A
TIP122 SL	N/A
TIP127	N/A
TIP127 SL	N/A
TIP132	N/A
TIP137	N/A
TIP140T	N/A
TIP141T	N/A
TIP142T	N/A
TIP145T	N/A
TIP146T	N/A
TIP147T	N/A
TIP29	N/A
TIP29A	N/A
TIP29A SL	N/A
TIP29B	N/A
TIP29C	N/A
TIP31	N/A
TIP31 SL	N/A
TIP31A	N/A
TIP31B	N/A
TIP31C SL	N/A
TIP32	N/A
TIP32A	N/A
TIP32A SL	N/A
TIP32B	N/A
TIP32C	N/A
TIP41	N/A
TIP41A	N/A
TIP41B	N/A
TIP41C	N/A
TIP41C SL	N/A
TIP42	N/A
TIP42A	N/A
TIP42B	N/A
TIP42C	N/A
TIP42C SL	N/A
TIP42D	N/A
2N3054	N/A
2N3055	N/A

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Central Part Number	Suggested Replacement
2N3442	N/A
2N3448	N/A
2N3713	N/A
2N3714	N/A
2N3715	N/A
2N3716	N/A
2N3766	N/A
2N3767	N/A
2N3771	N/A
2N3772	N/A
2N3773	N/A
2N3789	N/A
2N3790	N/A
2N3791	N/A
2N3792	N/A
2N3902	N/A
2N4231	N/A
2N4232	N/A
2N4233	N/A
2N4347	N/A
2N4348	N/A
2N4398	N/A
2N4399	N/A
2N4901	N/A
2N4902	N/A
2N4903	N/A
2N4904	N/A
2N4905	N/A
2N4906	N/A
2N4910	N/A
2N4911	N/A
2N4912	N/A
2N4913	N/A
2N4914	N/A
2N4915	N/A
2N4918	N/A
2N4919	N/A
2N4920	N/A
2N4921	N/A
2N4922	N/A
2N4923	N/A
2N4923 SL	N/A
2N5067	N/A

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Central Part Number	Suggested Replacement
2N5068	N/A
2N5069	N/A
2N5192	N/A
2N5192 SL	N/A
2N5195	N/A
2N5195 SL	N/A
2N5240	N/A
2N5294	N/A
2N5296	N/A
2N5297	N/A
2N5297 SL	N/A
2N5298	N/A
2N5301	N/A
2N5302	N/A
2N5303	N/A
2N5490	N/A
2N5492	N/A
2N5494	N/A
2N5496	N/A
2N5629	N/A
2N5632	N/A
2N5655	N/A
2N5656	N/A
2N5657	N/A
2N5745	N/A
2N5760	N/A
2N5838	N/A
2N5873	N/A
2N5875	N/A
2N5876	N/A
2N5877	N/A
2N5878	N/A
2N5879	N/A
2N5880	N/A
2N5881	N/A
2N5882	N/A
2N5883	N/A
2N5884	N/A
2N5885	N/A
2N5886	N/A
2N6029	N/A
2N6031	N/A
2N6034	N/A

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Central Part Number	Suggested Replacement
2N6035	N/A
2N6036	N/A
2N6037	N/A
2N6038	N/A
2N6039 SL	N/A
2N6040	N/A
2N6042	N/A
2N6043	N/A
2N6044	N/A
2N6045	N/A
2N6050	N/A
2N6051	N/A
2N6052	N/A
2N6055	N/A
2N6056	N/A
2N6057	N/A
2N6058	N/A
2N6059	N/A
2N6099	N/A
2N6109	N/A
2N6111	N/A
2N6121	N/A
2N6122	N/A
2N6123	N/A
2N6124	N/A
2N6125	N/A
2N6126	N/A
2N6129	N/A
2N6130	N/A
2N6131	N/A
2N6132	N/A
2N6133	N/A
2N6134	N/A
2N6226	N/A
2N6229	N/A
2N6230	N/A
2N6246	N/A
2N6247	N/A
2N6248	N/A
2N6249	N/A
2N6250	N/A
2N6251	N/A
2N6253	N/A

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Central Part Number	Suggested Replacement
2N6254	N/A
2N6259	N/A
2N6260	N/A
2N6263	N/A
2N6282	N/A
2N6283	N/A
2N6284	N/A
2N6285	N/A
2N6286	N/A
2N6287	N/A
2N6288	N/A
2N6290	N/A
2N6292	N/A
2N6306	N/A
2N6307	N/A
2N6308	N/A
2N6312	N/A
2N6371	N/A
2N6383	N/A
2N6384	N/A
2N6385	N/A
2N6386	N/A
2N6387	N/A
2N6388	N/A
2N6465	N/A
2N6466	N/A
2N6469	N/A
2N6470	N/A
2N6471	N/A
2N6472	N/A
2N6475	N/A
2N6476	N/A
2N6489	N/A
2N6489 SL	N/A
2N6490	N/A
2N6491	N/A
2N6497	N/A
2N6498	N/A
2N6498 SL	N/A
2N6499	N/A
2N6499 SL	N/A
2N6530	N/A
2N6531	N/A

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Central Part Number	Suggested Replacement
2N6532	N/A
2N6543	N/A
2N6544	N/A
2N6545	N/A
2N6546	N/A
2N6547	N/A
2N6569	N/A
2N6576	N/A
2N6577	N/A
2N6578	N/A
2N6594	N/A
2N6609	N/A
2N6666	N/A
2N6667	N/A
2N6668	N/A
2N6671	N/A
2N6672	N/A
2N6673	N/A
2N6674	N/A
2N6675	N/A
2N6677	N/A
2N6678	N/A
40250	N/A
40312	N/A

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. If you would like assistance, please visit <https://my.centrasemi.com/submit-inquiry?type=ER> to submit an online inquiry.

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