TIP31
TIP31A
TIP31B
TIP31C
SILICON
NPN POWER TRANSISTORS

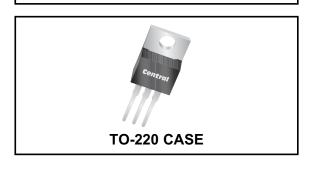


www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR TIP31 series devices are silicon NPN epitaxial-base power transistors designed for power amplifier and high speed switching applications.

MARKING: FULL PART NUMBER



MAXIMUM RATINGS: (T_C=25°C unless otherwise noted)

	SYMBOL	<u>TIP31</u>	<u>TIP31A</u>	<u>TIP31B</u>	TIP31C	UNITS
Collector-Base Voltage	V_{CBO}	40	60	80	100	V
Collector-Emitter Voltage	V_{CEO}	40	60	80	100	V
Emitter-Base Voltage	V_{EBO}		5	.0		V
Continuous Collector Current	I_{C}		3	.0		Α
Peak Collector Current	I _{CM}		5	.0		Α
Continuous Base Current	I_{B}		1	.0		Α
Power Dissipation	P_D		4	.0		W
Power Dissipation (T _A =25°C)	P_D		2	.0		W
Operating and Storage Junction Temp	perature T _J , T _{stg}		-65 to	+150		°C
Thermal Resistance	Θ_{JA}		62	2.5		°C/W
Thermal Resistance	Θ JC		3.	13		°C/W

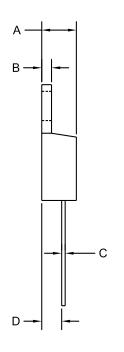
ELECTRIC	CAL CHAP	ACTEDISTICS.	(Ta=25°C unloss	otherwise noted)
CLCCIRI	CAL CHAR	4C ERIO ICO.	U C=20 G UHIESS	omerwise noteo

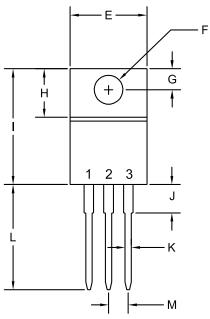
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
ICEO	V _{CE} =30V (TIP31, TIP31A)			0.3	mA
ICEO	V _{CE} =60V (TIP31B, TIP31C)			0.3	mA
I _{CES}	V _{CE} =Rated V _{CEO}			0.2	mA
I _{EBO}	V _{EB} =5.0V			1.0	mA
BV_CEO	I _C =30mA (TIP31)	40			V
BV CEO	I _C =30mA (TIP31A)	60			V
BV_{CEO}	I _C =30mA (TIP31B)	80			V
BV_CEO	I _C =30mA (TIP31C)	100			V
VCE(SAT)	I _C =3.0A, I _B =375mA			1.2	V
V _{BE(ON)}	V_{CE} =4.0V, I_{C} =3.0A			1.8	V
h _{FE} ` ´	V _{CE} =4.0V, I _C =1.0A	25			
h _{FE}	V_{CE} =4.0V, I_{C} =3.0A	10		60	
h _{fe}	V_{CE} =10V, I_{C} =0.5A, f=1.0kHz	20			
f _T	V_{CE} =10V, I_{C} =0.5A, f=1.0MHz	3.0			MHz
ton	I_C =1.0A, I_{B1} = I_{B2} =0.1A, R_L =30 Ω		0.3		μs
toff	I_C =1.0A, I_{B1} = I_{B2} =0.1A, R_L =30 Ω		1.0		μs

TIP31
TIP31A
TIP31B
TIP31C
SILICON
NPN POWER TRANSISTORS



TO-220 CASE - MECHANICAL OUTLINE





R2

LEAD CODE:

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

MARKING:

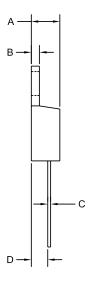
FULL PART NUMBER

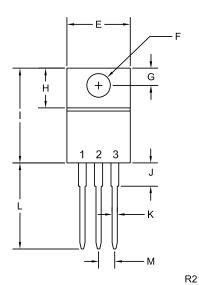
DIMENSIONS				
	INC	HES	MILLIM	ETERS
SYMBOL	MIN	MAX	MIN	MAX
Α	0.170	0.190	4.31	4.82
В	0.045	0.055	1.15	1.39
С	0.013	0.026	0.33	0.65
D	0.083	0.107	2.10	2.72
Е	0.394	0.417	10.01	10.60
F (DIA)	0.140	0.157	3.55	4.00
G	0.100	0.118	2.54	3.00
Н	0.230	0.270	5.85	6.85
	0.560	0.625	14.23	15.87
J	-	0.250	-	6.35
K	0.025	0.038	0.64	0.96
Ĺ	0.500	0.579	12.70	14.70
М	0.090	0.110	2.29	2.79

TO-220 (REV: R2)

Package Details - TO-220

Mechanical Drawing





DIMENSIONS					
	INC	HES	MILLIM	ETERS	
SYMBOL	MIN	MAX	MIN	MAX	
Α	0.170	0.190	4.31	4.82	
В	0.045	0.055	1.15	1.39	
С	0.013	0.026	0.33	0.65	
D	0.083	0.107	2.10	2.72	
Е	0.394	0.417	10.01	10.60	
F (DIA)	0.140	0.157	3.55	4.00	
G	0.100	0.118	2.54	3.00	
Н	0.230	0.270	5.85	6.85	
	0.560	0.625	14.23	15.87	
J	-	0.250	-	6.35	
K	0.025	0.038	0.64	0.96	
L	0.500	0.579	12.70	14.70	
M	0.090	0.110	2.29	2.79	

TO-220 (REV: R2)

Packing Information

Standard: Bulk

Devices are bulk packed in white corrugated box with black conductive coating

(surface resistivity of <10⁵ ohms per square).

Standard Packing Quantity: 500

Sleeve Packing Quantity: 50

LEAD CODE:

TRIAC

SCR

1) MT1

CATHODE
 ANODE

2) MT23) GATE

3) GATE

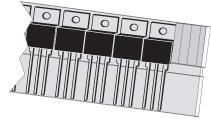
TRANSISTOR

1) BASE

2) COLLECTOR

3) EMITTER

Note: TAB is Common to Pin 2



TO-220 Antistatic Sleeve



R0 (9-August 2004)

Material Composition Specification TO-220 Case





Component Material		Material		Cubatanaa	CACNE	Substance								
Component	Materiai	(%wt)	(mg)	Substance	CAS No.	(%wt)	(mg)	(ppm)						
active device	doped Si	0.3%	5.67	Si	7440-21-3	0.3%	5.67	3,006						
bond wire	aluminum	0.14%	2.55	Al	7429-90-5	0.14%	2.55	1,352						
				Cu	7440-50-8	66.79%	1,260	667,944						
leadframe	Cu alloy	66.89%	1261.86	Fe	7439-89-6	0.003%	0.06	32						
				Р	7723-14-0	0.1%	1.8	954						
		high temperature solder 0.33%		Pb	7439-92-1	0.3%	5.74	3,043						
die attach	, ,		0.33%	6.21	Sn	7440-31-5	0.02%	0.31	164					
				Ag	7440-22-4	0.01%	0.16	82						
		EMC 31.81%	31.81% 600	31.81% 600	silica	7631-86-9	23.22%	438	232,190					
	EMC				31.81%	31.81%	24.040/	31.81% 600	epoxy resin	Proprietary	7.32%	138	73,156	
	EIVIC						5176 000		Sb ₂ O ₃	1309-64-4	0.64%	12	6,361	
				TBBA	79-94-7	0.64%	12	6,361						
encapsulation*					silica	7631-86-9	23.86%	450	238,552					
												epoxy resin	Proprietary	4.93%
	EMC GREEN	31.81%	1.81% 600	epoxy polymer	Proprietary	2.39%	45	23,855						
				Sb ₂ O ₃	1309-64-4	0.54%	10.2	5,406						
			carbon black	1333-86-4	0.1%	1.8	954							
	tin/load proces	0.540/	10.1	Sn	7440-31-5	0.43%	8.08	4,283						
plating**	tin/lead process	0.54%	10.1	Pb	7439-92-1	0.11%	2.02	1,071						
	matte tin	0.54%	10.1	Sn	7440-31-5	0.54%	10.1	5,354						

^{*}EMC GREEN molding compound is Halogen-Free.

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.

R4 (16-July 2018)

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^{**}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.

Material Composition Specification TO-220 Case





Device average mass..... 1.89 g

Commonant	nent Material	Material		Substance	CAS No.	Substance						
Component	Materiai	(%wt)	(mg)	Substance	CAS NO.	(%wt)	(mg)	(ppm)				
active device	doped Si	0.3%	5.67	Si	7440-21-3	0.3%	5.67	3,006				
bond wire	aluminum	0.14%	2.55	Al	7429-90-5	0.14%	2.55	1,352				
				Cu	7440-50-8	66.79%	1,260	667,944				
leadframe	Cu alloy	66.89%	1261.86	Fe	7439-89-6	0.003%	0.06	32				
				Р	7723-14-0	0.1%	1.8	954				
	high temperature solder			Pb	7439-92-1	0.3%	5.74	3,043				
die attach				0.33%	6.21	Sn	7440-31-5	0.02%	0.31	164		
			Ag	7440-22-4	0.01%	0.16	82					
				silica	7631-86-9	23.22%	438	232,190				
	EMC 31.81%	31.81%	600	epoxy resin	Proprietary	7.32%	138	73,156				
	EWIC	31.01%	31.01/0	31.0170	31.01%	.0170	1.0170	Sb ₂ O ₃	1309-64-4	0.64%	12	6,361
				TBBA	79-94-7	0.64%	12	6,361				
encapsulation*			31.81% 600	silica	7631-86-9	23.86%	450	238,552				
				epoxy resin	Proprietary	4.93%	93	49,301				
	EMC GREEN	31.81%		epoxy polymer	Proprietary	2.39%	45	23,855				
				Sb ₂ O ₃	1309-64-4	0.54%	10.2	5,406				
				carbon black	1333-86-4	0.1%	1.8	954				
	tin/lead process	0.54%	10.1	Sn	7440-31-5	0.43%	8.08	4,283				
plating**	un/lead process	0.54%	10.1	Pb	7439-92-1	0.11%	2.02	1,071				
	matte tin	0.54%	10.1	Sn	7440-31-5	0.54%	10.1	5,354				

^{*}EMC GREEN molding compound is Halogen-Free.

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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.

R4 (16-July 2018)

www.centralsemi.com

^{**}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.

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.centralsemi.com

Worldwide Field Representatives: www.centralsemi.com/wwreps

Worldwide Distributors:

www.centralsemi.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.centralsemi.com/terms

www.centralsemi.com (001)



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

https://www.centralsemi.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.



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

https://www.centralsemi.com

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.



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

https://www.centralsemi.com

*** CONTINUED FROM PRIOR PAGE ***

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

Central Part Number	Suggested Replacement	
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	
BD157 BD158	N/A	
BD150 BD159	N/A	
BD175	N/A	
BD176	N/A	
BD170 BD177	N/A	
BD177	N/A	
BD178 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	

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

*** CONTINUED FROM PRIOR PAGE ***

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

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 N/A	
BUX44	N/A N/A	
BUX47	N/A N/A	
BUX48	N/A N/A	
BUX80		
* CONTINUED ***	N/A	

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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

*** CONTINUED FROM PRIOR PAGE ***

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

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 ***	1 1/ 4 X	

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.



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

https://www.centralsemi.com

*** CONTINUED FROM PRIOR PAGE ***

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

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
* CONTINUED ***	

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

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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 ***	- W

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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	
* CONTINUED ***	A V/ 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	
	N/A N/A	
2N4399		
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	
	N/A	
2N5656		
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	
	N/A N/A	
2N6125		
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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N/A
N/A
N/A
N/A
N/A
N/A
N/A
N/A N/A N/A N/A N/A N/A
N/A N/A N/A N/A N/A
N/A N/A N/A N/A
N/A N/A N/A N/A
N/A N/A N/A
N/A N/A
N/A N/A
N/A
1 V/ F1
N/A
N/A 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.centralsemi.com/submit-inquiry?type=ER to submit an online inquiry.

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