

CMPZDC2V4 THRU CMPZDC47V

**SURFACE MOUNT
DUAL, COMMON CATHODE
SILICON ZENER DIODES
2.4 VOLTS THRU 47 VOLTS
350mW**


www.centrasemi.com
DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMPZDC2V4 series dual silicon Zener diode is a highly quality voltage regulator, connected in a common cathode configuration, for use in industrial, commercial, entertainment and computer applications.

**MARKING CODE: SEE MARKING CODES ON
ELECTRICAL CHARACTERISTICS TABLE**
**SOT-23 CASE****MAXIMUM RATINGS:** ($T_A=25^{\circ}\text{C}$)

Power Dissipation

Operating and Storage Temperature

Thermal Resistance

SYMBOL P_D T_J, T_{stg} θ_{JA}

350

-65 TO +175

429

UNITS

mW

 $^{\circ}\text{C}$ $^{\circ}\text{C/W}$ **ELECTRICAL CHARACTERISTICS PER DIODE:** ($T_A=25^{\circ}\text{C}$) $V_F=0.9\text{V MAX @ } I_F=10\text{mA}$ (for all types)

TYPE	ZENER VOLTAGE $V_Z @ I_{ZT}$		TEST CURRENT	MAXIMUM ZENER IMPEDANCE			MAXIMUM REVERSE CURRENT		MAXIMUM ZENER CURRENT	MAXIMUM ZENER VOLTAGE TEMP. COEFF.	MARKING CODE
	MIN	MAX	I_{ZT}	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$		I_{ZM}	θV_Z	
	V	V	mA	Ω	Ω	mA	μA	V	mA	% / $^{\circ}\text{C}$	
CMPZDC2V4	2.2	2.6	5.0	100	600	1.0	50	1.0	63	-0.06	CCW3
CMPZDC2V7	2.5	2.9	5.0	100	600	1.0	20	1.0	57	-0.06	CCW4
CMPZDC3V0	2.8	3.2	5.0	95	600	1.0	10	1.0	54	-0.06	CCW5
CMPZDC3V3	3.1	3.5	5.0	95	600	1.0	5.0	1.0	47	-0.06	CCW6
CMPZDC3V6	3.4	3.8	5.0	95	600	1.0	2.0	1.0	45	-0.06	CCW7
CMPZDC3V9	3.7	4.1	5.0	90	600	1.0	2.0	1.0	43	-0.06	CCW8
CMPZDC4V3	4.0	4.6	5.0	90	600	1.0	1.0	1.0	40	-0.05	CCW9
CMPZDC4V7	4.4	5.0	5.0	80	500	1.0	3.0	2.0	38	-0.03	CCZ1
CMPZDC5V1	4.8	5.4	5.0	60	480	1.0	2.0	2.0	35	0.02	CCZ2
CMPZDC5V6	5.2	6.0	5.0	40	400	1.0	1.0	2.0	32	0.03	CCZ3
CMPZDC6V2	5.8	6.6	5.0	10	150	1.0	3.0	4.0	28	0.04	CCZ4
CMPZDC6V8	6.4	7.2	5.0	15	80	1.0	2.0	4.0	25	0.05	CCZ5
CMPZDC7V5	7.0	7.9	5.0	15	80	1.0	1.0	5.0	23	0.05	CCZ6
CMPZDC8V2	7.7	8.7	5.0	15	80	1.0	0.7	5.0	21	0.06	CCZ7
CMPZDC9V1	8.5	9.6	5.0	15	100	1.0	0.5	6.0	18	0.06	CCZ8
CMPZDC10V	9.4	10.6	5.0	20	150	1.0	0.2	7.0	16	0.07	CCZ9
CMPZDC11V	10.4	11.6	5.0	20	150	1.0	0.1	8.0	15	0.07	CCY1
CMPZDC12V	11.4	12.7	5.0	25	150	1.0	0.1	8.0	13	0.07	CCY2
CMPZDC13V	12.4	14.1	5.0	30	170	1.0	0.1	8.0	12	0.08	CCY3
CMPZDC15V	13.8	15.6	5.0	30	200	1.0	0.05	10.5	11	0.08	CCY4
CMPZDC16V	15.3	17.1	5.0	40	200	1.0	0.05	11.2	10	0.08	CCY5
CMPZDC18V	16.8	19.1	5.0	45	225	1.0	0.05	12.6	9.2	0.08	CCY6
CMPZDC20V	18.8	21.2	5.0	55	225	1.0	0.05	14.0	8.3	0.08	CCY7
CMPZDC22V	20.8	23.3	5.0	55	250	1.0	0.05	15.4	7.6	0.09	CCY8

R2 (10-August 2012)

CMPZDC2V4 THRU CMPZDC47V

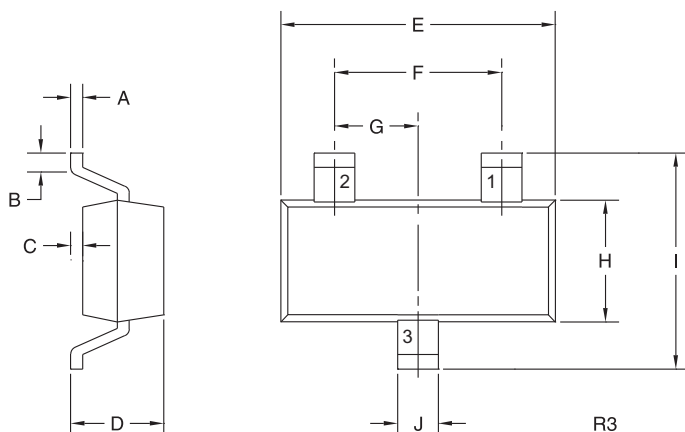
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ELECTRICAL CHARACTERISTICS PER DIODE - Continued: ($T_A=25^{\circ}\text{C}$) $V_F=0.9\text{V MAX @ } I_F=10\text{mA}$ (for all types)

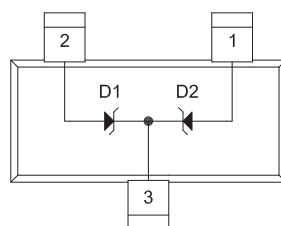
TYPE	ZENER VOLTAGE $V_Z @ I_{ZT}$		TEST CURRENT I_{ZT}	MAXIMUM ZENER IMPEDANCE			MAXIMUM REVERSE CURRENT		MAXIMUM ZENER CURRENT I_{ZM}	MAXIMUM ZENER VOLTAGE TEMP. COEFF. ΘV_Z	MARKING CODE
	MIN	MAX		$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$				
	V	V		Ω	Ω	mA	μA	V	mA	% / $^{\circ}\text{C}$	
CMPZDC24V	22.8	25.6	5.0	70	250	1.0	0.05	16.8	7.0	0.09	CCY9
CMPZDC27V	25.1	28.9	2.0	80	300	0.5	0.05	18.9	6.2	0.09	CC10
CMPZDC30V	28.0	32.0	2.0	80	300	0.5	0.05	21.0	5.6	0.09	CC11
CMPZDC33V	31.0	35.0	2.0	80	325	0.5	0.05	23.1	5.0	0.09	CC12
CMPZDC36V	34.0	38.0	2.0	90	350	0.5	0.05	25.2	4.6	0.09	CC13
CMPZDC39V	37.0	41.0	2.0	130	350	0.5	0.05	27.3	4.3	0.09	CC14
CMPZDC43V	40.0	46.0	2.0	150	375	0.5	0.05	30.1	3.9	0.10	CC15
CMPZDC47V	44.0	50.0	2.0	170	375	0.5	0.05	32.9	3.5	0.10	CC16

SOT-23 CASE - MECHANICAL OUTLINE



SYMBOL	DIMENSIONS			
	INCHES	MILLIMETERS	MIN	MAX
A	0.003	0.007	0.08	0.18
B	0.006	-	0.15	-
C	-	0.005	-	0.13
D	0.035	0.043	0.89	1.09
E	0.110	0.120	2.80	3.05
F	0.075	1.90		
G	0.037	0.95		
H	0.047	0.055	1.19	1.40
I	0.083	0.098	2.10	2.49
J	0.014	0.020	0.35	0.50

SOT-23 (REV: R3)



LEAD CODE:

- 1) Anode D2
- 2) Anode D1
- 3) Cathode D1, D2

MARKING CODE:

SEE MARKING CODES ON ELECTRICAL CHARACTERISTICS TABLE

R2 (10-August 2012)

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

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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



<https://www.centrasemi.com>

Product End of Life Notification

PDN ID:	PDN01133 Rev:001
Notification Date:	5/17/23
Last Buy Date:	Stock Only
Last Shipment Date	Stock Only

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 Corp.

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.centrasemi.com>

Product End of Life Notification

PDN ID:	PDN01133 Rev:001
Notification Date:	5/17/23
Last Buy Date:	Stock Only
Last Shipment Date	Stock Only

Summary: The CMPZDC2V4 Series of Zener diodes are discontinued and now as End of Life (EOL). Rev:001 of PDN#01133, May 17, 2023, issued to reactivate part numbers CMPZDC15V BK and CMPZDC15V TR due to current market demand; the CMPZDC15V BK and CMPZDC15V TR are now active devices.

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
CMPZDC10V BK	N/A
CMPZDC10V TR	N/A
CMPZDC11V BK	N/A
CMPZDC11V TR	N/A
CMPZDC12V BK	N/A
CMPZDC12V TR	N/A
CMPZDC13V BK	N/A
CMPZDC13V TR	N/A
CMPZDC16V BK	N/A
CMPZDC16V TR	N/A
CMPZDC18V BK	N/A
CMPZDC18V TR	N/A
CMPZDC2V4 BK	N/A
CMPZDC2V4 TR	N/A
CMPZDC2V7 BK	N/A
CMPZDC2V7 TR	N/A
CMPZDC20V BK	N/A
CMPZDC20V TR	N/A
CMPZDC22V BK	N/A
CMPZDC22V TR	N/A
CMPZDC24V BK	N/A
CMPZDC24V TR	N/A
CMPZDC27V BK	N/A
CMPZDC27V TR	N/A
CMPZDC3V0 BK	N/A
CMPZDC3V0 TR	N/A
CMPZDC3V3 BK	N/A
CMPZDC3V3 TR	N/A
CMPZDC3V6 BK	N/A
CMPZDC3V6 TR	N/A
CMPZDC3V9 BK	N/A
CMPZDC3V9 TR	N/A
CMPZDC30V BK	N/A
CMPZDC30V TR	N/A

*** CONTINUED ***

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*** CONTINUED FROM PRIOR PAGE ***

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

Central Part Number	Suggested Replacement
CMPZDC33V BK	N/A
CMPZDC33V TR	N/A
CMPZDC36V BK	N/A
CMPZDC36V TR	N/A
CMPZDC39V BK	N/A
CMPZDC39V TR	N/A
CMPZDC4V3 BK	N/A
CMPZDC4V3 TR	N/A
CMPZDC4V7 BK	N/A
CMPZDC4V7 TR	N/A
CMPZDC43V BK	N/A
CMPZDC43V TR	N/A
CMPZDC47V BK	N/A
CMPZDC47V TR	N/A
CMPZDC5V1 BK	N/A
CMPZDC5V1 TR	N/A
CMPZDC5V6 BK	N/A
CMPZDC5V6 TR	N/A
CMPZDC6V2 BK	N/A
CMPZDC6V2 TR	N/A
CMPZDC6V8 BK	N/A
CMPZDC6V8 TR	N/A
CMPZDC7V5 BK	N/A
CMPZDC7V5 TR	N/A
CMPZDC8V2 BK	N/A
CMPZDC8V2 TR	N/A
CMPZDC9V1 BK	N/A
CMPZDC9V1 TR	N/A
CMPZDC15V BK	Item CMPZDC15V BK removed from PDN; device now active.
CMPZDC15V TR	Item CMPZDC15V TR removed from PDN; device now active.

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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