

**1N4460 THRU 1N4496**  
**SILICON ZENER DIODES**  
**1.5 WATT, 6.2 THRU 200 VOLT**  
**5% TOLERANCE**

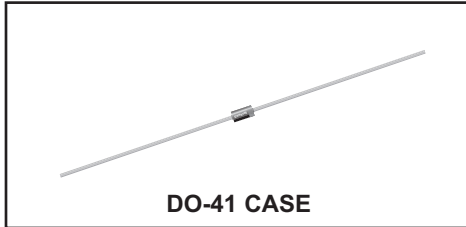


[www.centrasemi.com](http://www.centrasemi.com)

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR 1N4460 series silicon Zener diode is a high quality voltage regulator designed for use in automotive, industrial, commercial, entertainment and computer applications.

**MARKING: FULL PART NUMBER**



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

Power Dissipation

Operating and Storage Junction Temperature

**SYMBOL**

$P_D$

$T_J, T_{stg}$

1.5

-65 to +200

**UNITS**

W

$^\circ\text{C}$

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

TYPE	ZENER VOLTAGE			TEST CURRENT	MAXIMUM ZENER IMPEDANCE			MAXIMUM REVERSE CURRENT	MAXIMUM DC CURRENT	MAXIMUM SURGE CURRENT (Note 1)	
	$V_Z @ I_{ZT}$				$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	$I_R @ V_R$				
	MIN	NOM	MAX	$I_{ZT}$				$\Omega$	$\Omega$	mA	$\mu\text{A}$
1N4460	5.890	6.2	6.510	40	4.0	200	1.0	20	3.72	230	5.5
1N4461	6.460	6.8	7.140	37	2.5	200	1.0	5.0	4.08	210	5.0
1N4462	7.125	7.5	7.875	34	2.5	400	0.5	1.0	4.50	191	4.5
1N4463	7.790	8.2	8.610	31	3.0	400	0.5	0.5	4.92	174	3.9
1N4464	8.645	9.1	9.555	28	4.0	500	0.5	0.3	5.46	157	3.4
1N4465	9.500	10	10.50	25	5.0	500	0.25	0.5	8.00	143	3.0
1N4466	10.45	11	11.55	23	6.0	550	0.25	0.3	8.80	130	2.6
1N4467	11.40	12	12.60	21	7.0	550	0.25	0.2	9.60	119	2.4
1N4468	12.35	13	13.65	19	8.0	550	0.25	0.1	10.40	110	2.2
1N4469	14.25	15	15.75	17	9.0	600	0.25	0.05	12.00	95	1.8
1N4470	15.20	16	16.80	15.5	10	600	0.25	0.05	12.80	90	1.6
1N4471	17.10	18	18.90	14	11	650	0.25	0.05	14.40	79	1.4
1N4472	19.00	20	21.00	12.5	12	650	0.25	0.05	16.00	71	1.2
1N4473	20.90	22	23.10	11.5	14	650	0.25	0.05	17.60	65	1.1
1N4474	22.80	24	25.20	10.5	16	700	0.25	0.05	19.20	60	0.90
1N4475	25.65	27	28.35	9.5	18	700	0.25	0.05	21.60	53	0.80
1N4476	28.50	30	31.50	8.5	20	750	0.25	0.05	24.00	48	0.75
1N4477	31.35	33	34.65	7.5	25	800	0.25	0.05	26.40	43	0.66
1N4478	34.20	36	37.80	7.0	27	850	0.25	0.05	28.80	40	0.60
1N4479	37.05	39	40.95	6.5	30	900	0.25	0.05	31.20	37	0.54
1N4480	40.85	43	45.15	6.0	40	950	0.25	0.05	34.40	33	0.48

Notes: (1) Ratings shown are for peak 1/2 sinusoidal surge current of 8.3ms duration, non-repetitive.

R4 (4-June 2013)

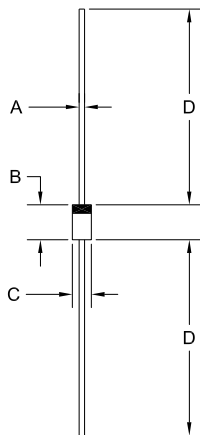
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**ELECTRICAL CHARACTERISTICS - Continued:** ( $T_A=25^{\circ}\text{C}$ )

TYPE	ZENER VOLTAGE $V_Z @ I_{ZT}$			TEST CURRENT $I_{ZT}$	MAXIMUM ZENER IMPEDANCE			MAXIMUM REVERSE CURRENT $I_R @ V_R$	MAXIMUM DC CURRENT $I_{ZM}$	MAXIMUM SURGE CURRENT (Note 1) $I_S$	
	MIN	NOM	MAX		$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$					
	V	V	V		mA	$\Omega$	$\Omega$ mA				$\mu\text{A}$ V
1N4481	44.65	47	49.35	5.5	50	1000	0.25	0.05	37.6	30	0.45
1N4482	48.45	51	53.55	5.0	60	1100	0.25	0.05	40.8	28	0.42
1N4483	53.20	56	58.80	4.5	70	1300	0.25	0.05	44.8	26	0.39
1N4484	58.90	62	65.10	4.0	80	1500	0.25	0.05	49.6	23	0.35
1N4485	64.60	68	71.40	3.7	100	1700	0.25	0.05	54.4	21	0.32
1N4486	71.25	75	78.75	3.3	130	2000	0.25	0.05	60.0	19	0.29
1N4487	77.90	82	86.10	3.0	160	2500	0.25	0.05	65.6	17	0.26
1N4488	86.45	91	95.55	2.8	200	3000	0.25	0.05	72.8	16	0.23
1N4489	95.00	100	105.0	2.5	250	3100	0.25	0.05	80.0	14	0.20
1N4490	104.5	110	115.5	2.3	300	4000	0.25	0.05	88.0	13	0.19
1N4491	114.0	120	126.0	2.0	400	4500	0.25	0.05	96.0	12	0.18
1N4492	123.5	130	136.5	1.9	500	5000	0.25	0.05	104	11	0.16
1N4493	142.5	150	157.5	1.7	700	6000	0.25	0.05	120	9.5	0.14
1N4494	152.0	160	168.0	1.6	1000	6500	0.25	0.05	128	8.9	0.12
1N4495	171.0	180	189.0	1.4	1300	7000	0.25	0.05	144	7.9	0.10
1N4496	190.0	200	210.0	1.2	1500	8000	0.25	0.05	160	7.2	0.08

**DO-41 CASE - MECHANICAL OUTLINE**



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.028	0.034	0.71	0.86
B	0.160	0.205	4.06	5.21
C	0.080	0.107	2.03	2.72
D	1.000	-	25.40	-

DO-41 (REV: R1)

R1

R4 (4-June 2013)

## 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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