

# Central<sup>TM</sup> Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

1N4460 thru 1N4496

1.5 WATT ZENER DIODE  
6.2 VOLTS to 200 VOLTS  
5% TOLERANCE

JEDEC DO-41 CASE

## DESCRIPTION

The Central Semiconductor 1N4460 Series Silicon Zener Diode is a high quality voltage regulator for use in automotive, industrial, commercial, entertainment and computer applications.

## ABSOLUTE MAXIMUM RATINGS

Power Dissipation (@  $T_A = 25^\circ\text{C}$ )  
Operating and Storage Temperature

## SYMBOL

$P_D$   
 $T_J, T_{STG}$

1.5W  
-65 to +200°C

## TOLERANCE

±5%

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

TYPE	Zener Voltage	Test Current	Maximum Zener Impedance			Maximum Reverse Current		Maximum DC Current	Surge Current	Zener Voltage Regulation Factor*
	$V_Z @ I_{Z1}$	$I_{Z1}$	$Z_{Z1} @ I_{Z1}$	$Z_{Z2} @ I_{Z2}$		$I_R @ V_R$		$I_{ZM}$	$i_T$	$\Delta V_Z$
	Volts	mA	$\Omega$	$\Omega$	mA	$\mu\text{A}$	Volts	mA	mA	Volts
1N4460	6.2	40	4.0	200	1.0	20	3.72	230	1540	0.35
1N4461	6.8	37	2.5	200	1.0	5.0	4.08	210	1480	0.30
1N4462	7.5	34	2.5	400	0.5	1.0	4.50	191	1360	0.35
1N4463	8.2	31	3.0	400	0.5	0.5	4.92	174	1200	0.40
1N4464	9.1	28	4.0	500	0.5	0.3	5.46	157	1080	0.45
1N4465	10	25	5.0	500	0.25	0.5	8.0	143	960	0.50
1N4466	11	23	6.0	550	0.25	0.3	8.8	130	840	0.55
1N4467	12	21	7.0	550	0.25	0.2	9.6	119	800	0.60
1N4468	13	19	8.0	550	0.25	0.1	10.4	110	740	0.65
1N4469	15	17	9.0	600	0.25	0.05	12	95	640	0.75
1N4470	16	15.5	10	600	0.25	0.05	12.8	90	600	0.80
1N4471	18	14	11	650	0.25	0.05	14.4	79	520	0.83
1N4472	20	12.5	12	650	0.25	0.05	16	71	480	0.95
1N4473	22	11.5	14	650	0.25	0.05	17.6	65	420	1.0
1N4474	24	10.5	16	700	0.25	0.05	19.2	60	400	1.1
1N4475	27	9.5	18	700	0.25	0.05	21.6	53	340	1.3
1N4476	30	8.5	20	750	0.25	0.05	24	48	320	1.4
1N4477	33	7.5	25	800	0.25	0.05	26.4	43	300	1.5
1N4478	36	7.0	27	850	0.25	0.05	28.8	40	260	1.7
1N4479	39	6.5	30	900	0.25	0.05	31.2	37	220	1.8
1N4480	43	6.0	40	950	0.25	0.05	34.4	33	200	1.9
1N4481	47	5.5	50	1000	0.25	0.05	37.6	30	190	2.1
1N4482	51	5.0	60	1100	0.25	0.05	40.8	28	180	2.3
1N4483	56	4.5	70	1300	0.25	0.05	44.8	26	170	2.5
1N4484	62	4.0	80	1500	0.25	0.05	49.6	23	150	2.7
1N4485	68	3.7	100	1700	0.25	0.05	54.4	21	140	3.0
1N4486	75	3.3	130	2000	0.25	0.05	60	19	126	3.3
1N4487	82	3.0	160	2500	0.25	0.05	65.6	17	116	3.6
1N4488	91	2.8	200	3000	0.25	0.05	72.8	16	100	4.0
1N4489	100	2.5	250	3100	0.25	0.05	80	14	90	4.4
1N4490	110	2.3	300	4000	0.25	0.05	88	13	83	5.0
1N4491	120	2.0	400	4500	0.25	0.05	96	12	80	5.5
1N4492	130	1.9	500	5000	0.25	0.05	104	11	69	6.0
1N4493	150	1.7	700	6000	0.25	0.05	120	9.5	57	7.0
1N4494	160	1.6	1000	6500	0.25	0.05	128	8.9	54	8.0
1N4495	180	1.4	1300	7000	0.25	0.05	144	7.9	49	10
1N4496	200	1.2	1500	8000	0.25	0.05	160	7.2	46	12

\*ZENER VOLTAGE REGULATION FACTOR: The Zener Voltage shall be measured at 10% of the  $I_{ZM}$  (Maximum DC Current). The current shall then be increased to 50% of the  $I_{ZM}$  and maintained at this level for a period of 90 seconds, at which time the change in Zener Voltage ( $|V_Z @ 10\%| - |V_Z @ 50\%|$ ) shall not exceed the Zener Voltage Regulation Factor. The device is to be suspended by its leads 3/8" from the body in free air at  $25^\circ\text{C}$ .