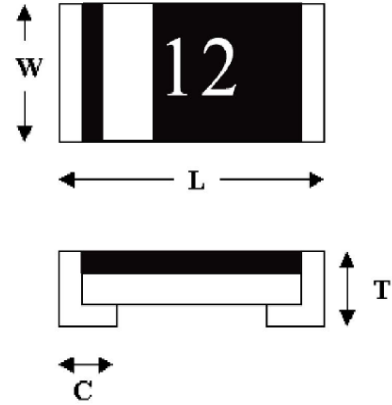


Zener Diodes
Power Dissipation - 500 mWatts
Features

- Silicon planar power zener diodes
- SMD chip pattern, available in various dimension
- Leadfree and RoHS compliance components

Mechanical Data

- Size: 0805
- Weight: approx. 6mg
- Marking: Zener voltage & cathode terminal

0805


Dimension/mm	0805
L	2.0±0.2
W	1.25±0.2
T	0.75±0.1
C	0.45±0.2

Package Outline Dimensions in Millimeters

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Characteristics	Symbol	Value	Unit
Power Dissipation	P _{tot}	500	mW
Repetitive Peak Forward Current	I _{FRM}	200	mA
Junction Temperature	T _j	150	°C
Thermal Resistance Junction to Ambient air	R _{θJA}	300	°C/W
Operating & Storage Temperature range	T _{opr, stg}	-55 to 150	°C
Forward Voltage at I _F =200mA	V _F	1.5 MAX	V

Zener Voltage Tolerance, =±5%

Notes: Valid provided that electrodes are kept at ambient temperature.

Rating and Characteristic Curves

HMZ0W502V0X4 THRU HMZ0W5075VX4

Part Number	Marking Code	Nominal Zener Voltage		Max Zener Impedance				Max Reverse Leakage Current	
		Vz @ IZT		ZZT @ IZT		ZZK @ IZK		IR @ VR	
		Min V	Max V	Ω	mA	Ω	mA	μA	V
HMZ0W502V0X4	2	1.90	2.10	85	5	600	1	100	1
HMZ0W502V2X4	2V2	2.09	2.31	85	5	600	1	75	1
HMZ0W502V4X4	2V4	2.28	2.52	85	5	600	1	50	1
HMZ0W502V7X4	2V7	2.57	2.84	85	5	600	1	10	1
HMZ0W503V0X4	3	2.85	3.15	85	5	600	1	4	1
HMZ0W503V3X4	3V3	3.14	3.47	85	5	600	1	2	1
HMZ0W503V6X4	3V6	3.42	3.78	85	5	600	1	2	1
HMZ0W503V9X4	3V9	3.71	4.10	85	5	600	1	2	1
HMZ0W504V3X4	4V3	4.09	4.52	80	5	600	1	1	1
HMZ0W504V7X4	4V7	4.47	4.94	70	5	600	1	0.5	1
HMZ0W505V1X4	5V1	4.85	5.36	50	5	550	1	0.1	1
HMZ0W505V6X4	5V6	5.32	5.88	30	5	450	1	0.1	1
HMZ0W506V2X4	6V2	5.89	6.51	10	5	200	1	0.1	2
HMZ0W506V8X4	6V8	6.46	7.14	8	5	150	1	0.1	3
HMZ0W507V5X4	7V5	7.13	7.88	7	5	50	1	0.1	5
HMZ0W508V2X4	8V2	7.79	8.61	7	5	50	1	0.1	6.2
HMZ0W509V1X4	9V1	8.65	9.56	10	5	50	1	0.1	6.8
HMZ0W5010VX4	10	9.50	10.50	15	5	70	1	0.1	7.5
HMZ0W5011VX4	11	10.45	11.55	20	5	70	1	0.1	8.2
HMZ0W5012VX4	12	11.40	12.60	20	5	90	1	0.1	9.1
HMZ0W5013VX4	13	12.35	13.65	26	5	110	1	0.1	10
HMZ0W5015VX4	15	14.25	15.75	30	5	110	1	0.1	11
HMZ0W5016VX4	16	15.20	16.80	40	5	170	1	0.1	12
HMZ0W5018VX4	18	17.10	18.90	50	5	170	1	0.1	13
HMZ0W5020VX4	20	19.00	21.00	55	5	220	1	0.1	15
HMZ0W5022VX4	22	20.90	23.10	55	5	220	1	0.1	16
HMZ0W5024VX4	24	22.80	25.20	80	5	220	1	0.1	18
HMZ0W5027VX4	27	25.65	28.35	80	5	220	1	0.1	20
HMZ0W5030VX4	30	28.50	31.50	80	5	220	1	0.1	22
HMZ0W5033VX4	33	31.35	34.65	80	5	220	1	0.1	24
HMZ0W5036VX4	36	34.20	37.80	80	5	220	1	0.1	27
HMZ0W5039VX4	39	37.05	40.95	90	2.5	500	0.5	0.1	29.3
HMZ0W5043VX4	43	40.85	45.15	90	2.5	600	0.5	0.1	32.3
HMZ0W5047VX4	47	44.65	49.35	110	2.5	700	0.5	0.1	35.3
HMZ0W5051VX4	51	48.45	53.55	125	2.5	700	0.5	0.1	38.3
HMZ0W5056VX4	56	53.20	58.80	135	2.5	1000	0.5	0.1	42
HMZ0W5062VX4	62	58.90	65.10	150	2.5	1000	0.5	0.1	46.5
HMZ0W5068VX4	68	64.60	71.40	200	2.5	1000	0.5	0.1	51
HMZ0W5075VX4	75	71.25	78.75	250	2.5	1500	0.5	0.1	56.3

The curve above is for reference only.

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Figure 1. Forward current vs Forward Voltage

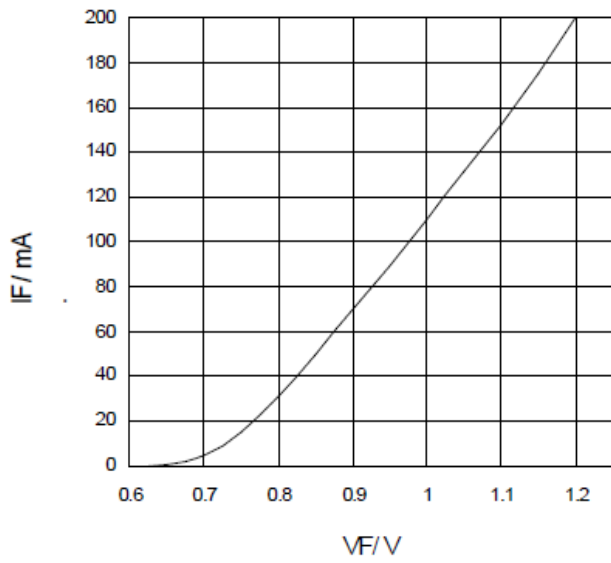
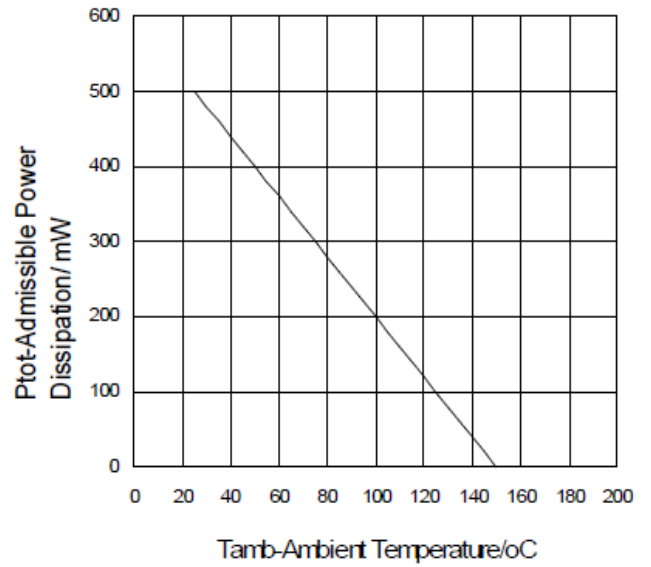


Figure 2. Power De-rating



The curve above is for reference only.

HMZ0W50*X4-7-99-00-CC0015

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