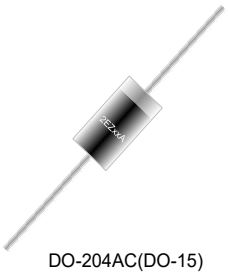
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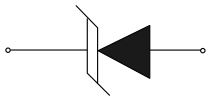
Silicon Zener Diodes

Features

- Built-in Strain relief
- Low inductance
- High peak reverse power dissipation
- Low reverse leakages
- For use in stabilizing and clipping with high Power rating
- MSL: Level 1



DO-204AC(DO-15)



Unidirectional

Mechanical Characteristics

- DO-204AC(DO-15) package
- Molding compound flammability rating: UL 94V-0
- Marking: Marking Code
- Packaging: Tape and Reel
- RoHS & HF Compliant

Applications

- I/O Interfaces
- Power lines
- Telecommunication
- Computers &Consumer Electronics
- Industrial Electronics

Absolute Maximum Rating (T_A=25℃ unless otherwise noted)

Rating	Symbol	Value	Units
DC Power dissipation at TL = 75 °C(1)	P_D	2.0	W
Maximum forward voltage at if=200mA	V_F	1.2	V
Junction temperature range	T_J	-55 to +150	℃
Storage temperature range	T_{STG}	-55 to +150	℃

Note1: T_L=Lead temperature at 3/8" (9.5mm)from body.

Features (T_A=25℃ unless otherwise noted)

Part Number	Nominal Zener Voltage @IZT			IZT(mA)	Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
	$V_{Z\ AVE.}$(V)	$V_{Z\ MIN.}$(V)	$V_{Z\ MAX.}$(V)		$Z_{ZT\ MAX.}$(Ω) @I_{ZT}	$Z_{ZK\ MAX.}$(Ω) @I_{ZK}	I_{ZK}(mA)	I_R(uA) @V_R	V_R(V)	I_{ZM}(mA)
WZ2EZ3.3AD5	3.3	3.14	3.47	145.0	8.0	400	1.00	100	1.0	548.0
WZ2EZ3.6AD5	3.6	3.42	3.78	139.0	5.0	400	1.00	100	1.0	502.0
WZ2EZ3.9AD5	3.9	3.71	4.10	128.0	5.0	400	1.00	50	1.0	464.0
WZ2EZ4.3AD5	4.3	4.09	4.52	116.0	4.5	400	1.00	50	1.0	421.0
WZ2EZ4.7AD5	4.7	4.47	4.94	106.0	4.5	550	1.00	10	1.0	385.0
WZ2EZ5.1AD5	5.1	4.85	5.36	98.0	3.5	600	1.00	10	1.0	354.0
WZ2EZ5.6AD5	5.6	5.32	5.88	89.5	2.5	500	1.00	10	2.0	323.0
WZ2EZ6.2AD5	6.2	5.89	6.51	80.5	1.5	700	1.00	10	3.0	292.0
WZ2EZ6.8AD5	6.8	6.46	7.14	73.5	2.0	700	1.00	10	4.0	266.0
WZ2EZ7.5AD5	7.5	7.13	7.88	66.5	2.0	700	0.50	10	5.0	242.0
WZ2EZ8.2AD5	8.2	7.79	8.61	61.0	2.3	700	0.50	10	6.0	220.0
WZ2EZ9.1AD5	9.1	8.65	9.56	55.0	2.5	700	0.50	10	7.0	200.0
WZ2EZ10AD5	10.0	9.50	10.50	50.0	3.5	700	0.25	10	7.6	182.0
WZ2EZ11AD5	11.0	10.45	11.55	45.5	4.0	700	0.25	0.5	8.4	166.0
WZ2EZ12AD5	12.0	11.40	12.60	41.5	4.5	700	0.25	0.5	9.1	152.0
WZ2EZ13AD5	13.0	12.35	13.65	38.5	5.0	700	0.25	0.5	9.9	138.0
WZ2EZ14AD5	14.0	13.30	14.70	35.7	5.5	700	0.25	0.5	10.6	130.0
WZ2EZ15AD5	15.0	14.25	15.75	33.4	7.0	700	0.25	0.5	11.4	122.0
WZ2EZ16AD5	16.0	15.20	16.80	31.2	8.0	700	0.25	0.5	12.2	114.0
WZ2EZ17AD5	17.0	16.15	17.85	29.4	9.0	750	0.25	0.5	13.0	107.0
WZ2EZ18AD5	18.0	17.10	18.90	27.8	10.0	750	0.25	0.5	13.7	100.0
WZ2EZ19AD5	19.0	18.05	19.95	26.3	11.0	750	0.25	0.5	14.4	95.0
WZ2EZ20AD5	20.0	19.00	21.00	25.0	11.0	750	0.25	0.5	15.2	90.0
WZ2EZ22AD5	22.0	20.90	23.10	22.8	12.0	750	0.25	0.5	16.7	82.0
WZ2EZ24AD5	24.0	22.80	25.20	20.8	13.0	750	0.25	0.5	18.2	76.0
WZ2EZ27AD5	27.0	25.65	28.35	18.5	18.0	750	0.25	0.5	20.6	68.0
WZ2EZ30AD5	30.0	28.50	31.50	16.6	20.0	1000	0.25	0.5	22.5	60.0
WZ2EZ33AD5	33.0	31.35	34.65	15.1	23.0	1000	0.25	0.5	25.1	55.0
WZ2EZ36AD5	36.0	34.20	37.80	13.9	25.0	1000	0.25	0.5	27.4	50.0
WZ2EZ39AD5	39.0	37.05	40.95	12.8	30.0	1000	0.25	0.5	29.7	47.0
WZ2EZ43AD5	43.0	40.85	45.15	11.6	35.0	1500	0.25	0.5	32.7	43.0
WZ2EZ47AD5	47.0	44.65	49.35	10.6	40.0	1500	0.25	0.5	35.8	39.0
WZ2EZ51AD5	51.0	48.45	53.55	9.8	48.0	1500	0.25	0.5	38.8	36.0
WZ2EZ56AD5	56.0	53.20	58.80	9.0	55.0	2000	0.25	0.5	42.6	32.0

Features (T_A=25℃ unless otherwise noted)

Part Number	Nominal Zener Voltage @IZT			IZT(mA)	Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
	$V_{Z\ AVE.}$(V)	$V_{Z\ MIN.}$(V)	$V_{Z\ MAX.}$(V)		$Z_{ZT\ MAX.}$(Ω) @I_{ZT}	$Z_{ZK\ MAX.}$(Ω) @I_{ZK}	I_{ZK}(mA)	I_R(uA) @V_R	V_R(V)	I_{ZM}(mA)
WZ2EZ62AD5	62.0	58.90	65.10	8.1	60.0	2000	0.25	0.5	47.1	29.0
WZ2EZ68AD5	68.0	64.60	71.40	7.4	75.0	2000	0.25	0.5	51.7	27.0
WZ2EZ75AD5	75.0	71.25	78.75	6.7	90.0	2000	0.25	0.5	56.0	24.0
WZ2EZ82AD5	82.0	77.90	86.10	6.1	100.0	3000	0.25	0.5	62.2	22.0
WZ2EZ91AD5	91.0	86.45	95.55	5.5	125.0	3000	0.25	0.5	69.2	20.0
WZ2EZ100AD5	100.0	95.00	105.00	5.0	175.0	3000	0.25	0.5	76.0	18.0
WZ2EZ110AD5	110.0	104.50	115.50	4.5	250.0	4000	0.25	0.5	83.6	17.0
WZ2EZ120AD5	120.0	114.00	126.00	4.2	325.0	4500	0.25	0.5	91.2	15.0
WZ2EZ130AD5	130.0	123.50	136.50	3.8	400.0	5000	0.25	0.5	98.8	14.0
WZ2EZ140AD5	140.0	133.00	147.00	3.6	500.0	5500	0.25	0.5	106.4	13.0
WZ2EZ150AD5	150.0	142.50	157.50	3.3	575.0	6000	0.25	0.5	114.0	12.0
WZ2EZ160AD5	160.0	152.00	168.00	3.1	650.0	6500	0.25	0.5	121.6	11.0
WZ2EZ170AD5	170.0	161.50	178.50	2.9	675.0	7000	0.25	0.5	130.4	11.0
WZ2EZ180AD5	180.0	171.00	189.00	2.8	725.0	7000	0.25	0.5	136.8	10.0
WZ2EZ190AD5	190.0	180.50	199.50	2.6	825.0	8000	0.25	0.5	144.8	10.0
WZ2EZ200AD5	200.0	190.00	210.00	2.5	1900.0	9990	0.25	0.5	152.0	9.0

Typical Characteristics

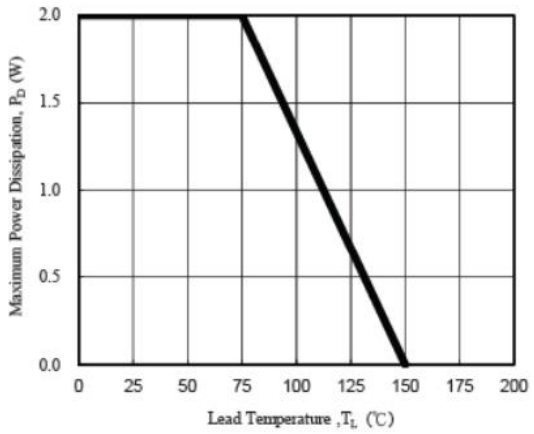


Fig. 1 - Power Temperature Derating Curve

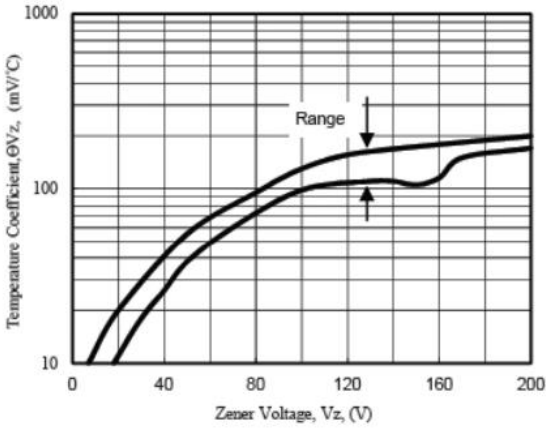


Fig. 2 - Temperature Coefficients v.s. Zener Voltage

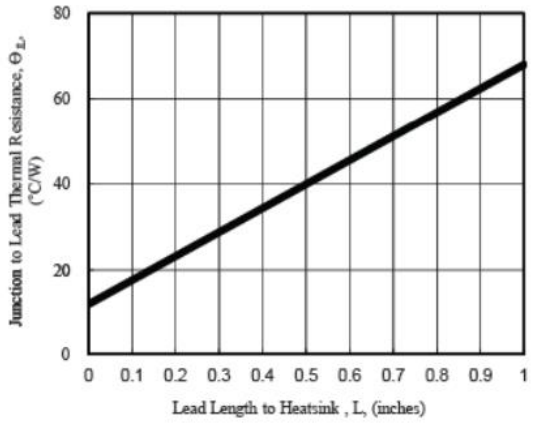


Fig. 3 - Typical Thermal Resistance v.s. Lead Length

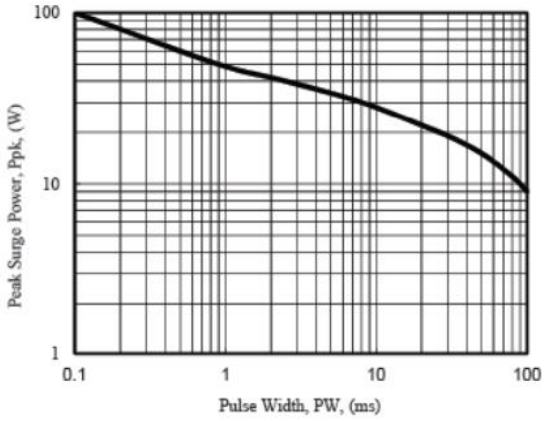


Fig. 4 - Maximum Surge Power

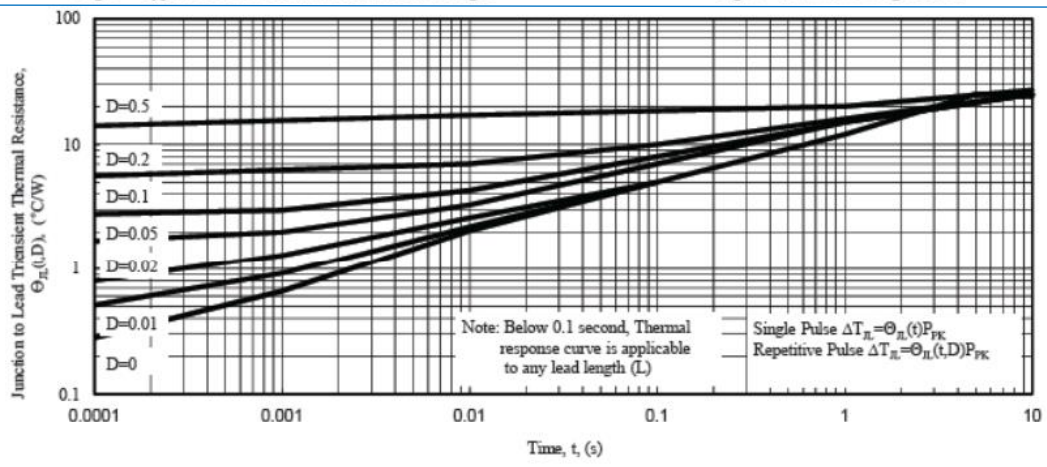
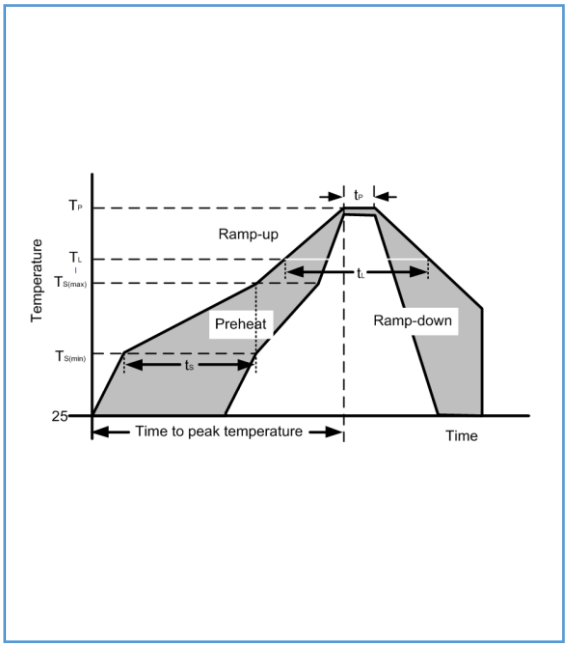


Fig. 5 - Typical Thermal Response L, Lead Length=3/8inch

Note: The above typical parameters or typical characteristics are only indicative and do not make specific guarantees. If detailed values are required, additional communication and provision are required.

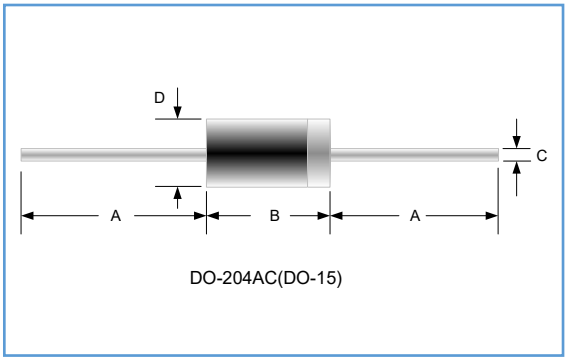
Recommended Soldering Parameters

Reflow Condition		
Pre-Heat	Temperature min ($T_{s(min)}$)	150°C
	Temperature max ($T_{s(max)}$)	200°C
	Time (min to max) (t_s)	60-190 s
Average ramp up rate (Liquidus Temp) (T_L) to peak		3°C/s max
Ts(max) to TL - Ramp-up Rate		3°C/s max
Reflow	Temperature (T_L) (Liquidus)	217°C
	Temperature (t_L)	60-150 s
Peak Temperature (T_P)		$260^{+0/-5}$ °C
Time within actual peak Temperature (t_p)		20-40 s
Ramp-down Rate		5°C/s max
Time 25°C to peak Temperature (T_P)		8 minutes max
Do not exceed		260°C



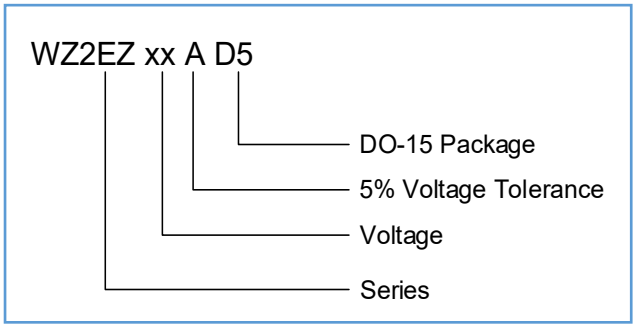
Outline Drawing – DO-204AC(DO-15)

Ref.（mm）	Millimeters	
	Min.	Max.
A	25.40	-
B	5.80	7.60
C	0.70	0.90
D	2.60	3.60

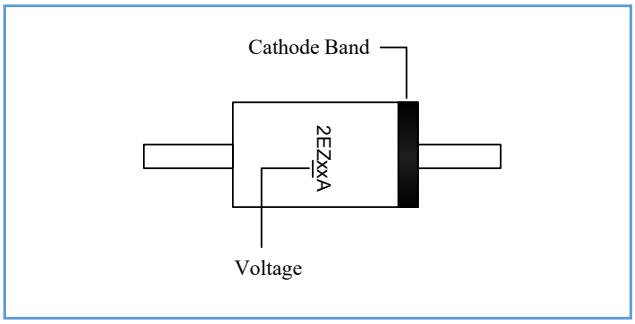


DO-204AC(DO-15)

Part Numbering System



Part Marking System



Package Information

Package Type	Description	Quantity（pcs）
DO-204AC(DO-15)	Tape & Box	2000

Contact Information

No.1001, Shiwan(7) Road, Pudong District, Shanghai, P.R.China.201207
Tel: 86-21-50310888 Fax: 86-21-50757680 Email: market@way-on.com
WAYON website: http://www.way-on.com
For additional information, please contact your local Sales Representative.
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Product Specification Statement

1.The product specification aims to provide users with a reference regarding various product parameters, performance, and usage. It presents certain aspects of the product's performance in graphical form and is intended solely for users to select product and make product comparisons, enabling users to better understand and evaluate the characteristics and advantages of the product. It does not constitute any commitment, warranty, or guarantee.

2.The product parameters described in the product specification are numerical values, characteristics, and functions obtained through actual testing or theoretical calculations of the product in an independent or ideal state. Due to the complexity of product applications and variations in test conditions and equipment, there may be slight fluctuations in parameter test values. WAYON shall not guarantee that the actual performance of the product when installed in the customer's system or equipment will be entirely consistent with the product specification, especially concerning dynamic parameters. It is recommended that users consult with professionals for product selection and system design. Users should also thoroughly validate and assess whether the actual parameters and performance when installed in their respective systems or equipment meet their requirements or expectations. Additionally, users should exercise caution in verifying product compatibility issues, and WAYON assumes no responsibility for the application of the product.

3.WAYON strives to provide accurate and up-to-date information to the best of our ability. However, due to technical, human, or other reasons, WAYON cannot guarantee that the information provided in the product specification is entirely accurate and error-free. WAYON shall not be held responsible for any losses or damages resulting from the use or reliance on any information in these product specifications. WAYON reserves the right to revise or update the product specification and the products at any time without prior notice, and the user's continued use of the product specification is considered an acceptance of these revisions and updates. Prior to purchasing and using the product, users should verify the above information with WAYON to ensure that the product specification is the most current, effective, and complete. If users are particularly concerned about product parameters, please consult WAYON in detail or request relevant product test reports. Any data not explicitly mentioned in the product specification shall be subject to separate agreement.

4.Users are advised to pay attention to the parameter limit values specified in the product specification and maintain a certain margin in design or application to ensure that the product does not exceed the parameter limit values defined in the product specification. This precaution should be taken to avoid exceeding one or more of the limit values, which may result in permanent irreversible damage to the product, ultimately affecting the quality and reliability of the system or equipment.

5.The design of the product is intended to meet civilian needs and is not guaranteed for use in harsh environments or precision equipment. It is not recommended for use in systems or equipment such as medical devices, aircraft, nuclear power, and similar systems, where failures in these systems or equipment could reasonably be expected to result in personal injury. WAYON shall assume no responsibility for any consequences resulting from such usage.

6.Users should also comply with relevant laws, regulations, policies, and standards when using the product specification. Users are responsible for the risks and liabilities arising from the use of the product specification and must ensure that it is not used for illegal purposes. Additionally, users should respect the intellectual property rights related to the product specification and refrain from infringing upon any third-party legal rights. WAYON shall assume no responsibility for any disputes or controversies arising from the above-mentioned issues in any form.