



Features

MiniMELF case especially for automatic insertion. The Zener voltages are graded according to the international E24 standard. Smaller voltage tolerances and higher Zener voltages are upon request. These diodes are also available in DO-35 case with the type designation BZX55C.



Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Power Dissipation ¹⁾	P_{tot}	500	mW
Junction Temperature	T_j	175	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 175	$^\circ\text{C}$

Thermal Characteristics

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient ¹⁾	$R_{\theta\text{JA}}$	300	$^\circ\text{C/W}$

¹⁾ Valid provided that electrodes are kept at ambient temperature.



Characteristics at $T_a = 25^\circ\text{C}$

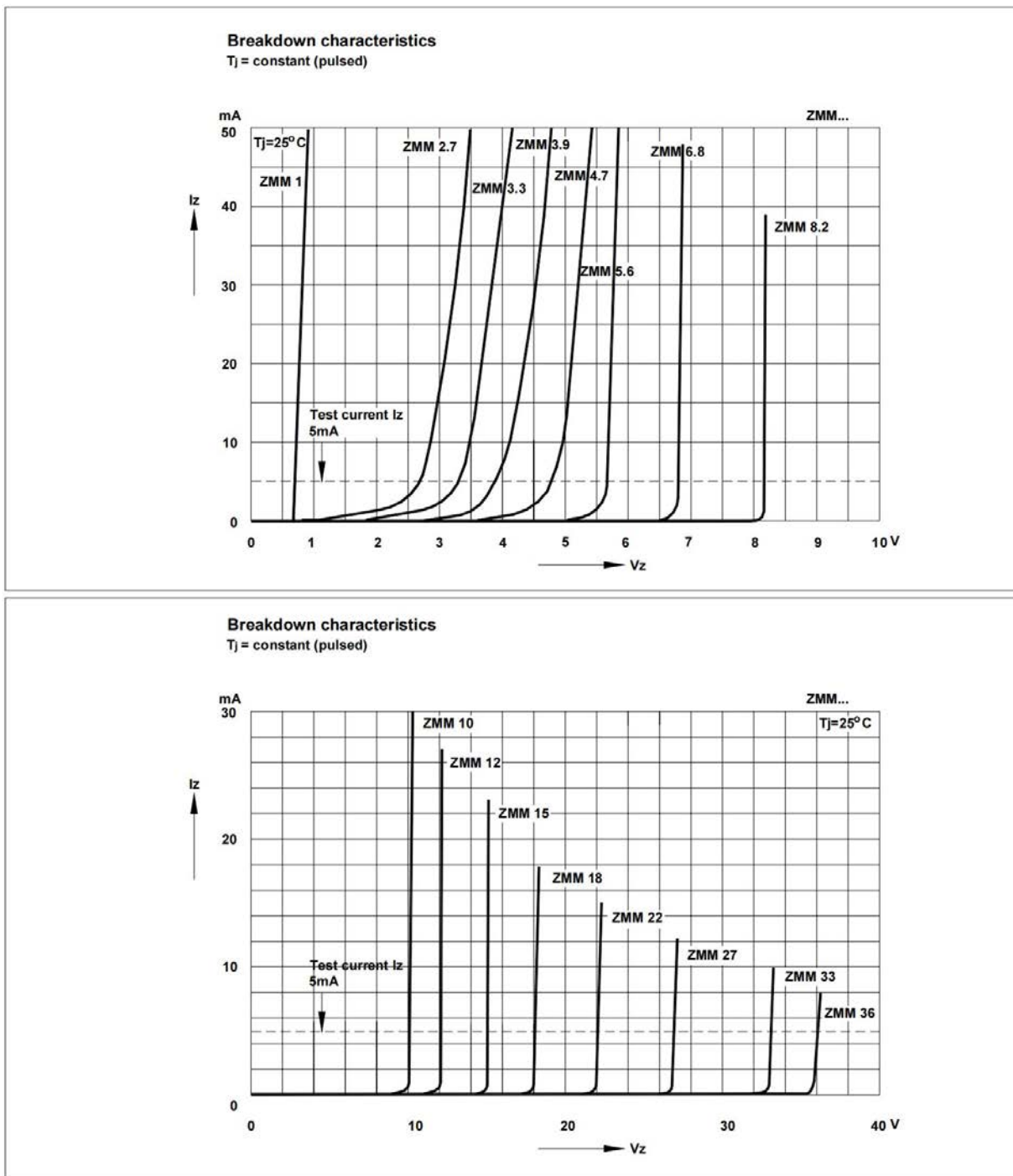
Type	Zener Voltage Range ¹⁾			Dynamic Resistance			Reverse Leakage Current			Temp. Coefficient of Zener Voltage
	V_{Znom}	V_{ZT}	at I_{ZT}	Z_{ZT}	Z_{ZK}	at I_{ZK}	$T_a = 25^\circ\text{C}$	$T_a = 125^\circ\text{C}$	at V_R	
	(V)	(V)	(mA)	Max. (Ω)	Max. (Ω)	(mA)	Max. (μA)	Max. (μA)	(V)	TKvz (%/K)
ZMM1 ²⁾	0.75	0.7...0.8	5	8	50	1	-	-	-	-0.26...-0.23
ZMM2V0	2	1.8...2.15	5	85	600	1	100	200	1	-0.09...-0.06
ZMM2V2	2.2	2.08...2.33	5	85	600	1	75	160	1	-0.09...-0.06
ZMM2V4	2.4	2.28...2.56	5	85	600	1	50	100	1	-0.09...-0.06
ZMM2V7	2.7	2.5...2.9	5	85	600	1	10	50	1	-0.09...-0.06
ZMM3V0	3	2.8...3.2	5	85	600	1	4	40	1	-0.08...-0.05
ZMM3V3	3.3	3.1...3.5	5	85	600	1	2	40	1	-0.08...-0.05
ZMM3V6	3.6	3.4...3.8	5	85	600	1	2	40	1	-0.08...-0.05
ZMM3V9	3.9	3.7...4.1	5	85	600	1	2	40	1	-0.08...-0.05
ZMM4V3	4.3	4...4.6	5	75	600	1	1	20	1	-0.06...-0.03
ZMM4V7	4.7	4.4...5	5	60	600	1	0.5	10	1	-0.05...+0.02
ZMM5V1	5.1	4.8...5.4	5	35	550	1	0.1	2	1	-0.02...+0.02
ZMM5V6	5.6	5.2...6	5	25	450	1	0.1	2	1	-0.05...+0.05
ZMM6V2	6.2	5.8...6.6	5	10	200	1	0.1	2	2	0.03...0.06
ZMM6V8	6.8	6.4...7.2	5	8	150	1	0.1	2	3	0.03...0.07
ZMM7V5	7.5	7...7.9	5	7	50	1	0.1	2	5	0.03...0.07
ZMM8V2	8.2	7.7...8.7	5	7	50	1	0.1	2	6.2	0.03...0.08
ZMM9V1	9.1	8.5...9.6	5	10	50	1	0.1	2	6.8	0.03...0.09
ZMM10V	10	9.4...10.6	5	15	70	1	0.1	2	7.5	0.03...0.1
ZMM11V	11	10.4...11.6	5	20	70	1	0.1	2	8.2	0.03...0.11
ZMM12V	12	11.4...12.7	5	20	90	1	0.1	2	9.1	0.03...0.11
ZMM13V	13	12.4...14.1	5	26	110	1	0.1	2	10	0.03...0.11
ZMM15V	15	13.8...15.6	5	30	110	1	0.1	2	11	0.03...0.11
ZMM16V	16	15.3...17.1	5	40	170	1	0.1	2	12	0.03...0.11
ZMM18V	18	16.8...19.1	5	50	170	1	0.1	2	13	0.03...0.11
ZMM20V	20	18.8...21.2	5	55	220	1	0.1	2	15	0.03...0.11
ZMM22V	22	20.8...23.3	5	55	220	1	0.1	2	16	0.04...0.12
ZMM24V	24	22.8...25.6	5	80	220	1	0.1	2	18	0.04...0.12
ZMM27V	27	25.1...28.9	5	80	220	1	0.1	2	20	0.04...0.12
ZMM30V	30	28...32	5	80	220	1	0.1	2	22	0.04...0.12
ZMM33V	33	31...35	5	80	220	1	0.1	2	24	0.04...0.12
ZMM36V	36	34...38	5	80	220	1	0.1	2	27	0.04...0.12
ZMM39V	39	37...41	2.5	90	500	0.5	0.1	5	30	0.04...0.12
ZMM43V	43	40...46	2.5	90	500	0.5	0.1	5	33	0.04...0.12
ZMM47V	47	44...50	2.5	110	600	0.5	0.1	5	36	0.04...0.12
ZMM51V	51	48...54	2.5	125	700	0.5	0.1	10	39	0.04...0.12
ZMM56V	56	52...60	2.5	135	700	0.5	0.1	10	43	0.04...0.12
ZMM62V	62	58...66	2.5	150	1000	0.5	0.1	10	47	0.04...0.12
ZMM68V	68	64...72	2.5	200	1000	0.5	0.1	10	51	0.04...0.12
ZMM75V	75	70...79	2.5	250	1000	0.5	0.1	10	56	0.04...0.12

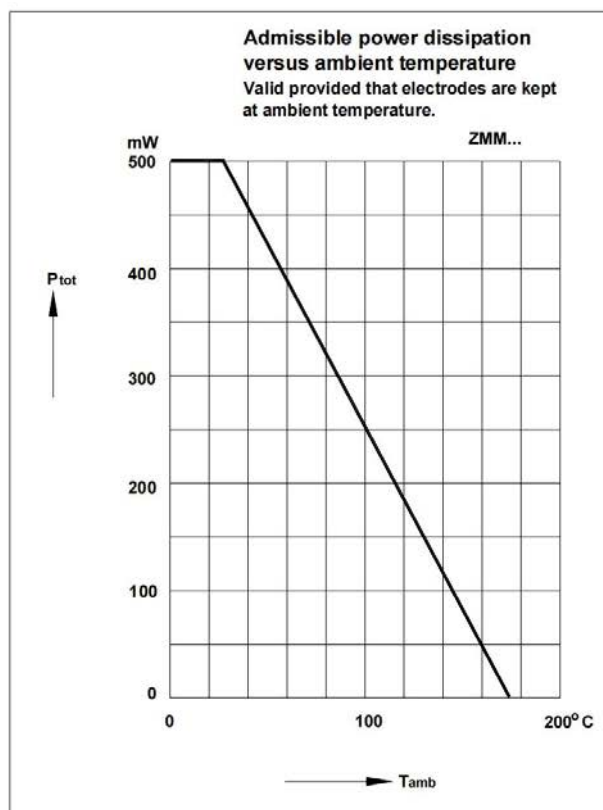
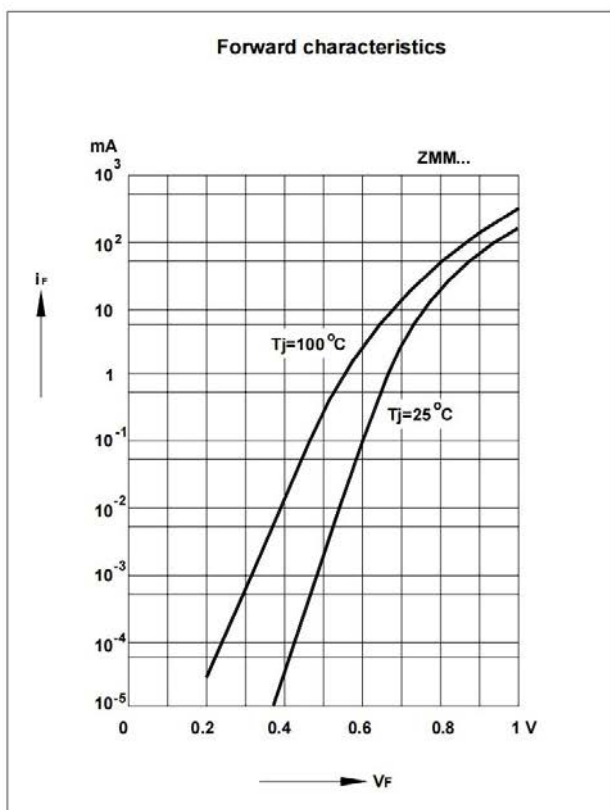
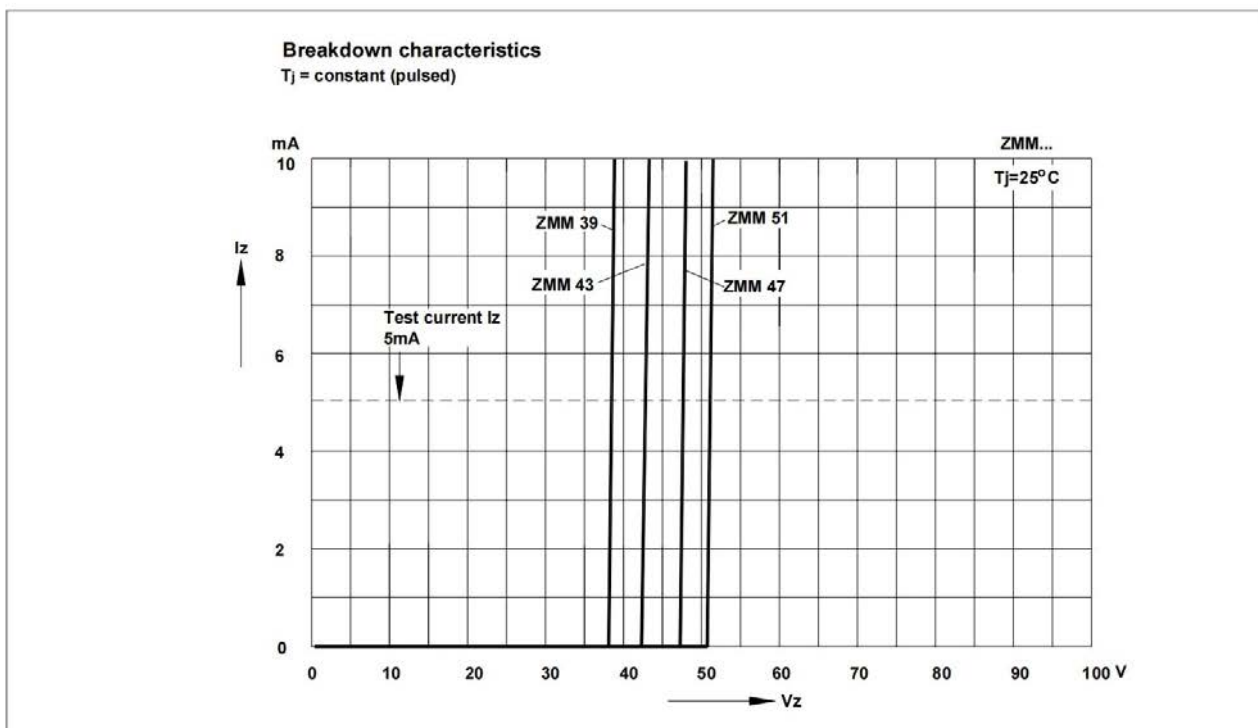
¹⁾ Tested with pulses $t_p = 20\text{ ms}$.

²⁾ The ZMM1 is a silicon diode with operation in forward direction. Hence, the index of all parameters should be "F" instead of "Z". Connect the cathode electrode to the negative pole.



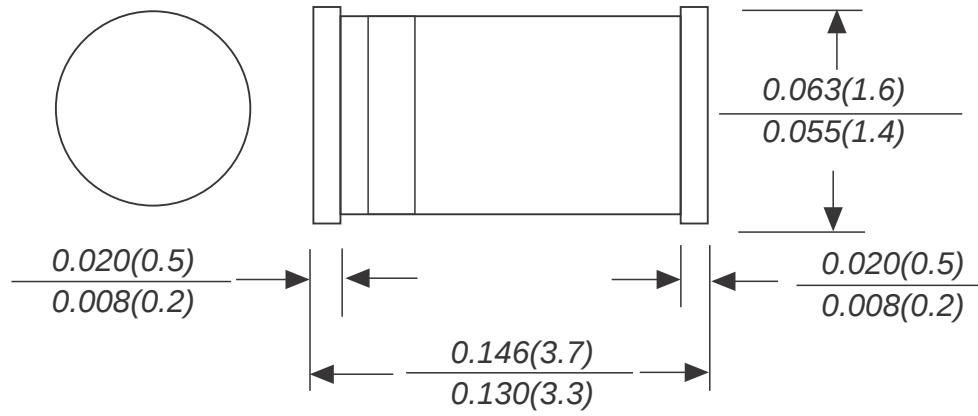
Typical Characteristics







LL-34 Package Information



Dimensions in inches and (millimeters)



Attention

- Any and all HUA XUAN YANG ELECTRONICS products described or contained herein do not have specifications that can handle applications that require extremely high levels of reliability, such as life-support systems, aircraft's control systems, or other applications whose failure can be reasonably expected to result in serious physical and/or material damage. Consult with your HUA XUAN YANG ELECTRONICS representative nearest you before using any HUA XUAN YANG ELECTRONICS products described or contained herein in such applications.
- HUA XUAN YANG ELECTRONICS assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all HUA XUAN YANG ELECTRONICS products described or contained herein.
- Specifications of any and all HUA XUAN YANG ELECTRONICS products described or contained herein stipulate the performance, characteristics, and functions of the described products in the independent state, and are not guarantees of the performance, characteristics, and functions of the described products as mounted in the customer's products or equipment. To verify symptoms and states that cannot be evaluated in an independent device, the customer should always evaluate and test devices mounted in the customer's products or equipment.
- HUA XUAN YANG ELECTRONICS CO.,LTD. strives to supply high-quality high-reliability products. However, any and all semiconductor products fail with some probability. It is possible that these probabilistic failures could give rise to accidents or events that could endanger human lives, that could give rise to smoke or fire, or that could cause damage to other property. When designing equipment, adopt safety measures so that these kinds of accidents or events cannot occur. Such measures include but are not limited to protective circuits and error prevention circuits for safe design, redundant design, and structural design.
- In the event that any or all HUA XUAN YANG ELECTRONICS products(including technical data, services) described or contained herein are controlled under any of applicable local export control laws and regulations, such products must not be exported without obtaining the export license from the authorities concerned in accordance with the above law.
- No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, or any information storage or retrieval system, or otherwise, without the prior written permission of HUA XUAN YANG ELECTRONICS CO.,LTD.
- Information (including circuit diagrams and circuit parameters) herein is for example only ; it is not guaranteed for volume production. HUA XUAN YANG ELECTRONICS believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringements of intellectual property rights or other rights of third parties.
- Any and all information described or contained herein are subject to change without notice due to product/technology improvement, etc. When designing equipment, refer to the "Delivery Specification" for the HUA XUAN YANG ELECTRONICS product that you intend to use.