HBZV55-Cxx
Plastic-Encapsulate Zener Diodes

Features

MiniMELF case especially for automatic insertion. TheZener voltages are graded according to theinternational E24 standard. Smaller voltage tolerancesand higher Zener voltages are upon request. These diodes are also available in DO-35 case withthe type designation HBZX55C...

LL-34

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Power Dissipation	P_{tot}	500 [1]	mW
Junction Temperature	T_j	175	°C
Storage Temperature Range	T_{stg}	- 55 to + 175	°C
[1] Valid provided that electrodes are kept at ambient temperature			

Characteristics at T_a = 25 °C

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient Air	R_{thA}	0.3 [1]	K/mW
Forward Voltage at I_F = 100 mA	V_F	1	V
[1] Valid provided that electrodes are kept at ambient temperature			

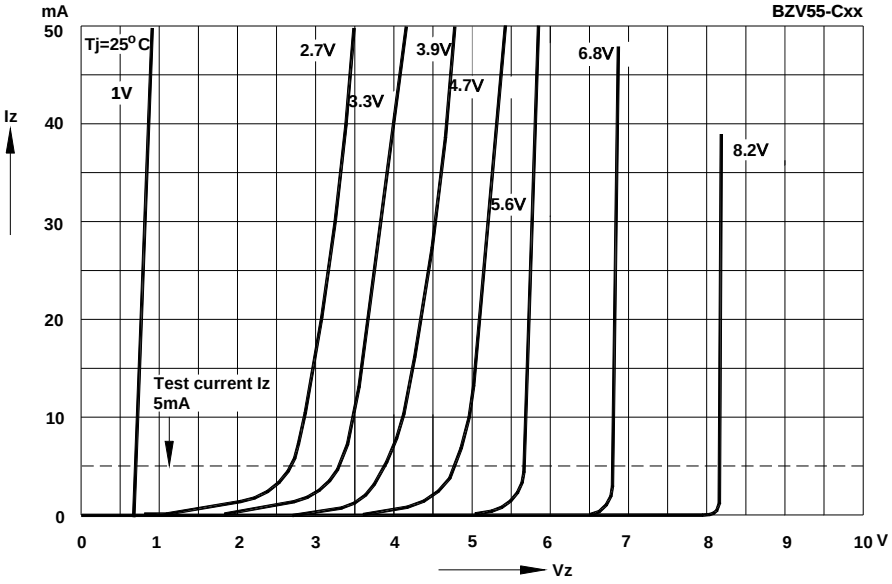
Characteristics at T_a = 25 °C

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 °C	T_a = 125 °C	at V_R	
	(V)	(V)	(mA)	Max. (Ω)	Max. (Ω)	(mA)	Max. (µA)	Max. (µA)	(V)	TKvz (%/K)
HBZV55-C1[2]	0.75	0.7...0.8	5	8	50	1	-	-	-	-0.26...-0.23
HBZV55-C2V0	2	1.8...2.15	5	85	600	1	100	200	1	-0.09...-0.06
HBZV55-C2V2	2.2	2.08...2.33	5	85	600	1	75	160	1	-0.09...-0.06
HBZV55-C2V4	2.4	2.28...2.56	5	85	600	1	50	100	1	-0.09...-0.06
HBZV55-C2V7	2.7	2.5...2.9	5	85	600	1	10	50	1	-0.09...-0.06
HBZV55-C3V0	3	2.8...3.2	5	85	600	1	4	40	1	-0.08...-0.05
HBZV55-C3V3	3.3	3.1...3.5	5	85	600	1	2	40	1	-0.08...-0.05
HBZV55-C3V6	3.6	3.4...3.8	5	85	600	1	2	40	1	-0.08...-0.05
HBZV55-C3V9	3.9	3.7...4.1	5	85	600	1	2	40	1	-0.08...-0.05
HBZV55-C4V3	4.3	4...4.6	5	75	600	1	1	20	1	-0.06...-0.03
HBZV55-C4V7	4.7	4.4...5	5	60	600	1	0.5	10	1	-0.05...+0.02
HBZV55-C5V1	5.1	4.8...5.4	5	35	550	1	0.1	2	1	-0.02...+0.02
HBZV55-C5V6	5.6	5.2...6	5	25	450	1	0.1	2	1	-0.05...+0.05
HBZV55-C6V2	6.2	5.8...6.6	5	10	200	1	0.1	2	2	0.03...0.06
HBZV55-C6V8	6.8	6.4...7.2	5	8	150	1	0.1	2	3	0.03...0.07
HBZV55-C7V5	7.5	7...7.9	5	7	50	1	0.1	2	5	0.03...0.07
HBZV55-C8V2	8.2	7.7...8.7	5	7	50	1	0.1	2	6.2	0.03...0.08
HBZV55-C9V1	9.1	8.5...9.6	5	10	50	1	0.1	2	6.8	0.03...0.09
HBZV55-C10	10	9.4...10.6	5	15	70	1	0.1	2	7.5	0.03...0.1
HBZV55-C11	11	10.4...11.6	5	20	70	1	0.1	2	8.2	0.03...0.11
HBZV55-C12	12	11.4...12.7	5	20	90	1	0.1	2	9.1	0.03...0.11
HBZV55-C13	13	12.4...14.1	5	26	110	1	0.1	2	10	0.03...0.11
HBZV55-C15	15	13.8...15.6	5	30	110	1	0.1	2	11	0.03...0.11
HBZV55-C16	16	15.3...17.1	5	40	170	1	0.1	2	12	0.03...0.11
HBZV55-C18	18	16.8...19.1	5	50	170	1	0.1	2	13	0.03...0.11
HBZV55-C20	20	18.8...21.2	5	55	220	1	0.1	2	15	0.03...0.11
HBZV55-C22	22	20.8...23.3	5	55	220	1	0.1	2	16	0.04...0.12
HBZV55-C24	24	22.8...25.6	5	80	220	1	0.1	2	18	0.04...0.12
HBZV55-C27	27	25.1...28.9	5	80	220	1	0.1	2	20	0.04...0.12
HBZV55-C30	30	28...32	5	80	220	1	0.1	2	22	0.04...0.12
HBZV55-C33	33	31...35	5	80	220	1	0.1	2	24	0.04...0.12
HBZV55-C36	36	34...38	5	80	220	1	0.1	2	27	0.04...0.12
HBZV55-C39	39	37...41	2.5	90	500	0.5	0.1	5	30	0.04...0.12
HBZV55-C43	43	40...46	2.5	90	500	0.5	0.1	5	33	0.04...0.12
HBZV55-C47	47	44...50	2.5	110	600	0.5	0.1	5	36	0.04...0.12
HBZV55-C51	51	48...54	2.5	125	700	0.5	0.1	10	39	0.04...0.12
HBZV55-C56	56	52...60	2.5	135	700	0.5	0.1	10	43	0.04...0.12
HBZV55-C62	62	58...66	2.5	150	1000	0.5	0.1	10	47	0.04...0.12
HBZV55-C68	68	64...72	2.5	200	1000	0.5	0.1	10	51	0.04...0.12
HBZV55-C75	75	70...79	2.5	250	1000	0.5	0.1	10	56	0.04...0.12

[1] Tested with pulses t_p = 20 ms.

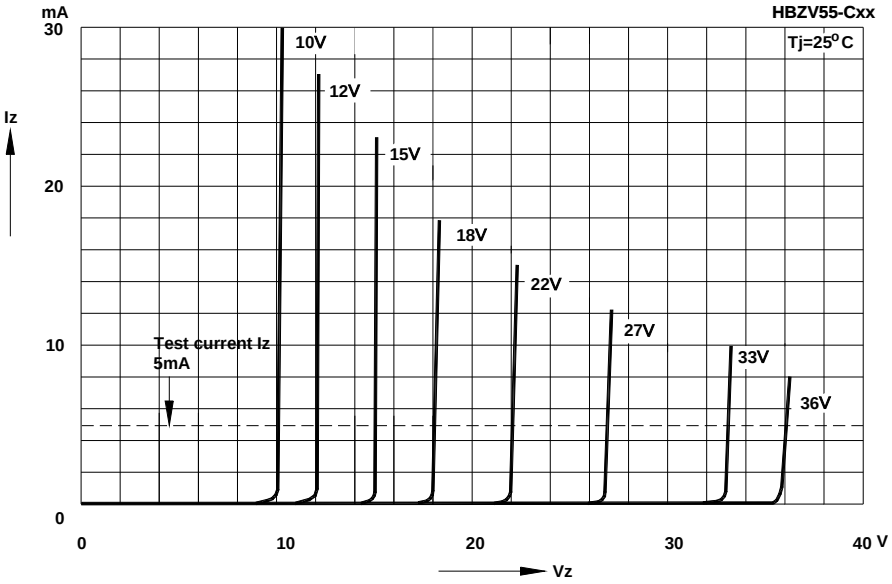
[2] The ZMM1 is a silicon diode with operation in forward direction. Hence, the index of all parameters should be "F" instead of "Z". Connect the cathode electrode to the negative pole.

Typical Characteristics

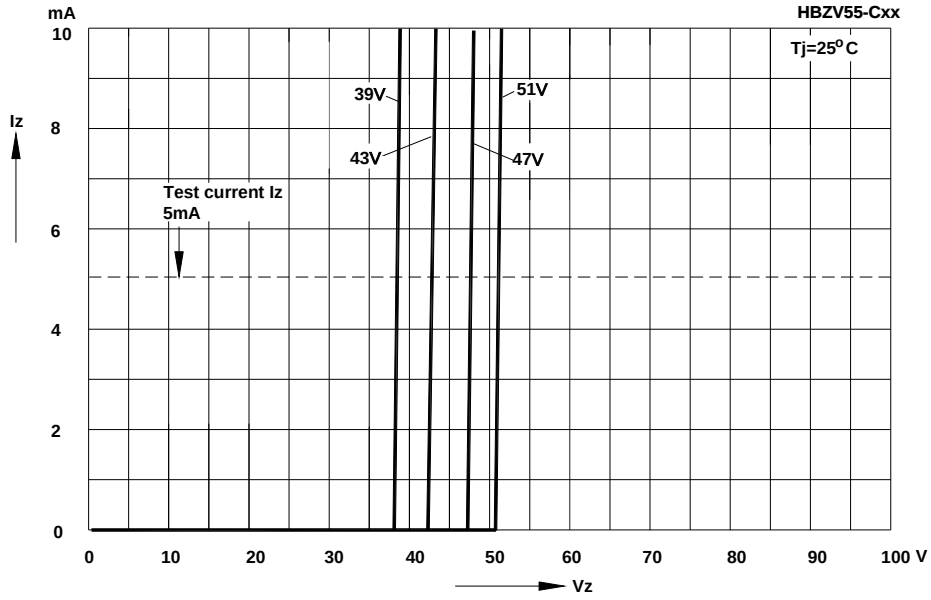


Breakdown characteristics

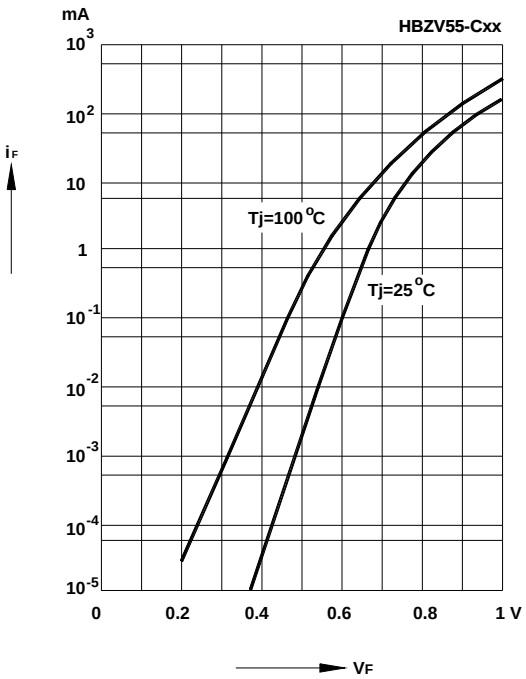
T_j = constant (pulsed)



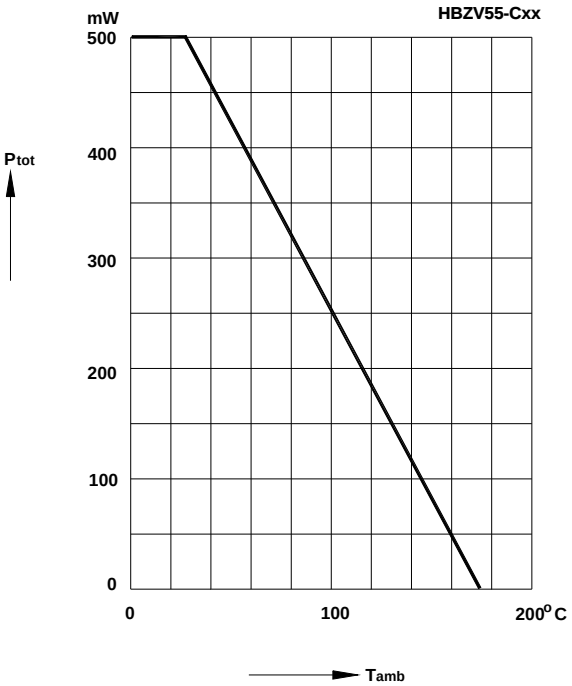
Breakdown characteristics
T_j = constant (pulsed)



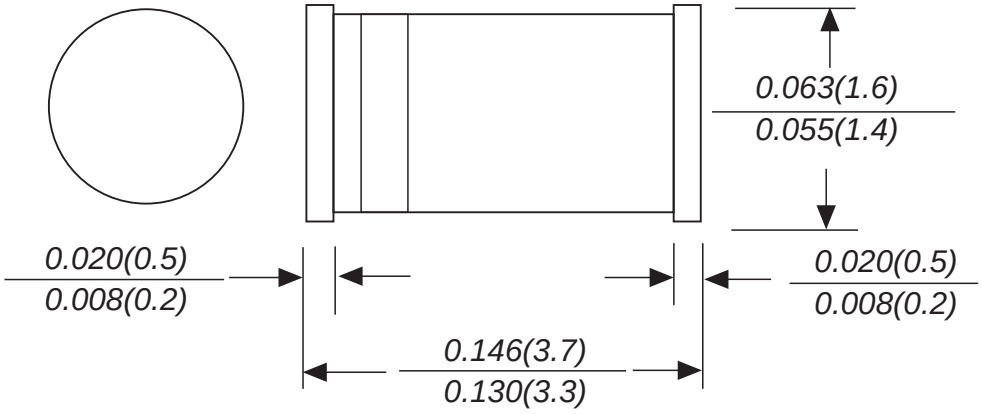
Forward characteristics



Admissible power dissipation versus ambient temperature
Valid provided that electrodes are kept at ambient temperature.



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.

■ 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.