

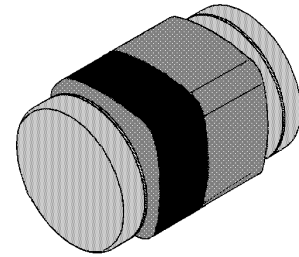
# ZMC RD...M Series

## ZENER DIODES

LS-31

### Features

- Planar process.
- Vz: Applied E24 standard.

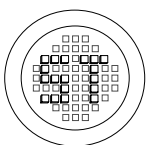


### Applications

- Circuits for, Constant Voltage, Constant Current Wave form clipper, Surge absorber, etc.

### Absolute Maximum Ratings (Ta = 25°C)

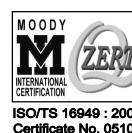
	Symbol	Value	Unit
Power Dissipation	$P_{tot}$	200	mW
Forward Current	$I_F$	150	mA
Reverse Surge Power At t = 10 $\mu$ s	$P_{RSM}$	100	W
Junction Temperature	$T_j$	150	°C
Storage Temperature Range	$T_s$	-55 to +150	°C



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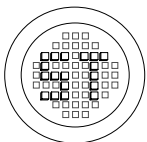


Dated : 22/01/2005

# ZMC RD...M Series

Characteristics at Ta = 25 °C

TYPE	Zener Voltage			Dynamic Impedance		Reverse Current	
	V <sub>Z</sub> (V) <sup>Note1</sup>			Z <sub>Z</sub> (Ω) <sup>Note2</sup>		I <sub>R</sub> (μA)	
	Min.	Max.	I <sub>Z</sub> (mA)	Max.	I <sub>Z</sub> (mA)	Max.	V <sub>R</sub> (V)
ZMCRD2.0MB	1.80	2.15	5	100	5	120	0.5
ZMCRD2.2MB	2.10	2.40	5	100	5	120	0.7
ZMCRD2.4MB	2.30	2.60	5	100	5	120	1.0
ZMCRD2.7MB	2.50	2.90	5	110	5	120	1.0
ZMCRD2.7MB1	2.50	2.75					
ZMCRD2.7MB2	2.65	2.90					
ZMCRD3.0MB	2.80	3.20	5	120	5	50	1.0
ZMCRD3.0MB1	2.80	3.05					
ZMCRD3.0MB2	2.95	3.20					
ZMCRD3.3MB	3.10	3.50	5	130	5	20	1.0
ZMCRD3.3MB1	3.10	3.35					
ZMCRD3.3MB2	3.25	3.50					
ZMCRD3.6MB	3.40	3.80	5	130	5	10	1.0
ZMCRD3.6MB1	3.40	3.65					
ZMCRD3.6MB2	3.55	3.80					
ZMCRD3.9MB	3.70	4.10	5	130	5	10	1.0
ZMCRD3.9MB1	3.70	3.97					
ZMCRD3.9MB2	3.87	4.10					
ZMCRD4.3MB	4.01	4.48	5	130	5	10	1.0
ZMCRD4.3MB1	4.01	4.21					
ZMCRD4.3MB2	4.15	4.34					
ZMCRD4.3MB3	4.28	4.48	5	130	5	10	1.0
ZMCRD4.7MB	4.42	4.90					
ZMCRD4.7MB1	4.42	4.61					
ZMCRD4.7MB2	4.55	4.75	5	130	5	10	1.0
ZMCRD4.7MB3	4.69	4.90					
ZMCRD5.1MB	4.84	5.37					
ZMCRD5.1MB1	4.84	5.04	5	130	5	5	1.5
ZMCRD5.1MB2	4.98	5.20					
ZMCRD5.1MB3	5.14	5.37					
ZMCRD5.6MB	5.31	5.92	5	80	5	5	2.5
ZMCRD5.6MB1	5.31	5.55					
ZMCRD5.6MB2	5.49	5.73					
ZMCRD5.6MB3	5.67	5.92	5	50	5	2	3.0
ZMCRD6.2MB	5.86	6.53					
ZMCRD6.2MB1	5.86	6.12					
ZMCRD6.2MB2	6.06	6.33	5	50	5	2	3.0
ZMCRD6.2MB3	6.26	6.53					
ZMCRD6.8MB	6.47	7.14					
ZMCRD6.8MB1	6.47	6.73	5	30	5	2	3.5
ZMCRD6.8MB2	6.65	6.93					
ZMCRD6.8MB3	6.86	7.14					
ZMCRD7.5MB	7.06	7.84	5	30	5	2	4.0
ZMCRD7.5MB1	7.06	7.36					
ZMCRD7.5MB2	7.28	7.60					
ZMCRD7.5MB3	7.52	7.84	5	30	5	2	5.0
ZMCRD8.2MB	7.76	8.64					
ZMCRD8.2MB1	7.76	8.10					
ZMCRD8.2MB2	8.02	8.36	5	30	5	2	5.0
ZMCRD8.2MB3	8.28	8.64					



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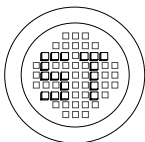
# ZMC RD...M Series

## Characteristics at Ta = 25°C

TYPE	Zener Voltage			Dynamic Impedance		Reverse Current	
	$V_Z$ (V) <sup>Note1</sup>			$Z_Z$ ( $\Omega$ ) <sup>Note2</sup>		$I_R$ ( $\mu$ A)	
	Min.	Max.	$I_Z$ (mA)	Max.	$I_Z$ (mA)	Max.	$V_R$ (V)
ZMCRD9.1MB	8.56	9.55	5	30	5	2	6.0
ZMCRD9.1MB1	8.56	8.93					
ZMCRD9.1MB2	8.85	9.23					
ZMCRD9.1MB3	9.15	9.55					
ZMCRD10MB	9.45	10.55	5	30	5	2	7.0
ZMCRD10MB1	9.45	9.87					
ZMCRD10MB2	9.77	10.21					
ZMCRD10MB3	10.11	10.55					
ZMCRD11MB	10.44	11.56	5	30	5	2	8.0
ZMCRD11MB1	10.44	10.88					
ZMCRD11MB2	10.76	11.22					
ZMCRD11MB3	11.10	11.56					
ZMCRD12MB	11.42	12.60	5	35	5	2	9.0
ZMCRD12MB1	11.42	11.90					
ZMCRD12MB2	11.74	12.24					
ZMCRD12MB3	12.08	12.60					
ZMCRD13MB	12.47	13.96	5	35	5	2	10
ZMCRD13MB1	12.47	13.03					
ZMCRD13MB2	12.91	13.49					
ZMCRD13MB3	13.37	13.96					
ZMCRD15MB	13.84	15.52	5	40	5	2	11
ZMCRD15MB1	13.84	14.46					
ZMCRD15MB2	14.34	14.98					
ZMCRD15MB3	14.85	15.52					
ZMCRD16MB	15.37	17.09	5	40	5	2	12
ZMCRD16MB1	15.37	16.01					
ZMCRD16MB2	15.85	16.51					
ZMCRD16MB3	16.35	17.09					
ZMCRD18MB	16.94	19.03	5	45	5	2	13
ZMCRD18MB1	16.94	17.70					
ZMCRD18MB2	17.56	18.35					
ZMCRD18MB3	18.21	19.03					
ZMCRD20MB	18.86	21.08	5	50	5	2	15
ZMCRD20MB1	18.86	19.70					
ZMCRD20MB2	19.52	20.39					
ZMCRD20MB3	20.21	21.08					
ZMCRD22MB	20.88	23.17	5	55	5	2	17
ZMCRD22MB1	20.88	21.77					
ZMCRD22MB2	21.54	22.47					
ZMCRD22MB3	22.23	23.17					
ZMCRD24MB	22.93	25.57	5	60	5	2	19
ZMCRD24MB1	22.93	23.96					
ZMCRD24MB2	23.72	24.78					
ZMCRD24MB3	24.54	25.57					
ZMCRD27MB	25.10	28.90	2	70	2	2	21
ZMCRD30MB	28.00	32.00	2	80	2	2	23
ZMCRD33MB	31.00	35.00	2	80	2	2	25
ZMCRD36MB	34.00	38.00	2	90	2	2	27
ZMCRD39MB	37.00	41.00	2	100	2	2	30
ZMCRD43MB	40.00	45.00	2	130	2	2	33
ZMCRD47MB	44.00	49.00	2	150	2	2	36

Note 1.  $V_Z$  is tested with pulse (20ms).

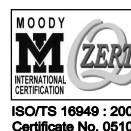
2.  $Z_Z$  is measured at  $I_Z$  by given a very small A.C. Current Signal.



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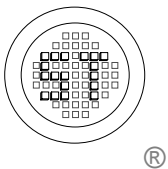
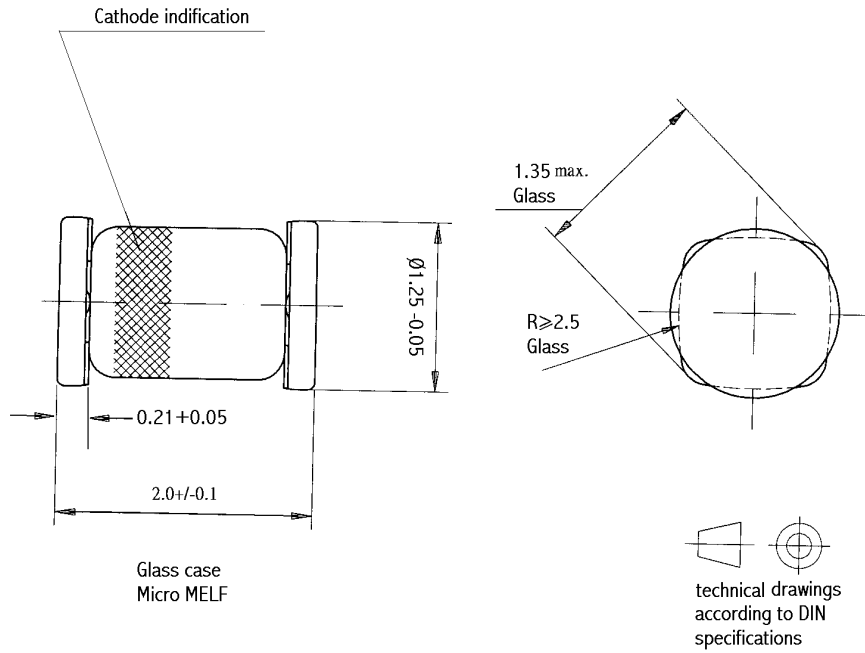
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# ZMC RD...M Series

## Dimensions in mm



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ISO 14001:2004  
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