

# ZMC RD...M Series

## ZENER DIODES

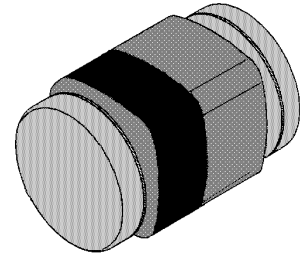
### Features

- Vz: Applied E24 standard

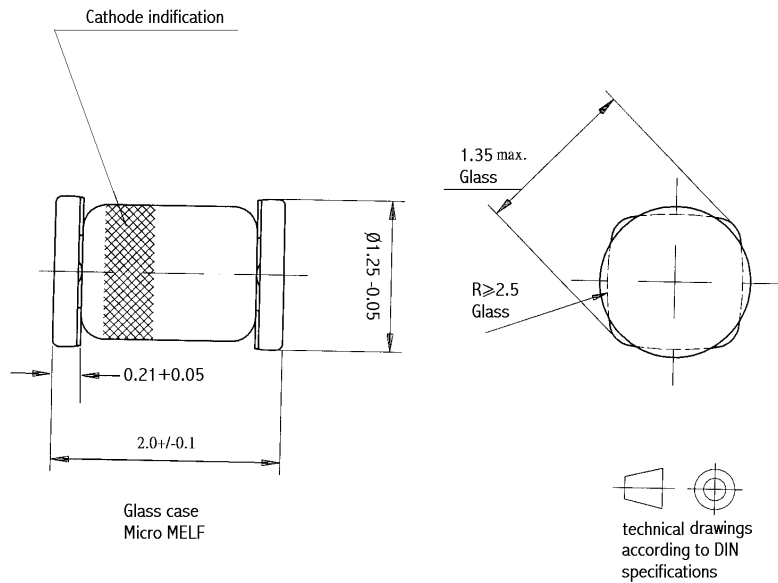
### Applications

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

LS-31

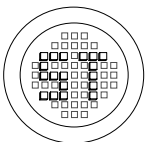


### Dimensions in mm



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

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



®

**SEMTECH ELECTRONICS LTD.**

(Subsidiary of Semtech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)

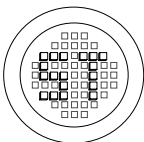


Dated : 17/05/2006

# ZMCRD...M Series

## Characteristics at T<sub>a</sub> = 25 °C

Type	Zener Voltage			Dynamic Impedance		Reverse Current	
	V <sub>Z</sub> (V) <sup>1)</sup>			Z <sub>Z</sub> (Ω) <sup>2)</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)
ZMCRD2V0MB	1.8	2.15	5	100	5	120	0.5
ZMCRD2V2MB	2.1	2.4	5	100	5	120	0.7
ZMCRD2V4MB	2.3	2.6	5	100	5	120	1
ZMCRD2V7MB	2.5	2.9	5	110	5	120	1
ZMCRD2V7MB1	2.5	2.75					
ZMCRD2V7MB2	2.65	2.9					
ZMCRD3V0MB	2.8	3.2	5	120	5	50	1
ZMCRD3V0MB1	2.8	3.05					
ZMCRD3V0MB2	2.95	3.2					
ZMCRD3V3MB	3.1	3.5	5	130	5	20	1
ZMCRD3V3MB1	3.1	3.35					
ZMCRD3V3MB2	3.25	3.5					
ZMCRD3V6MB	3.4	3.8	5	130	5	10	1
ZMCRD3V6MB1	3.4	3.65					
ZMCRD3V6MB2	3.55	3.8					
ZMCRD3V9MB	3.7	4.1	5	130	5	10	1
ZMCRD3V9MB1	3.7	3.97					
ZMCRD3V9MB2	3.87	4.1					
ZMCRD4V3MB	4.01	4.48	5	130	5	10	1
ZMCRD4V3MB1	4.01	4.21					
ZMCRD4V3MB2	4.15	4.34					
ZMCRD4V3MB3	4.28	4.48	5	130	5	10	1
ZMCRD4V7MB	4.42	4.9					
ZMCRD4V7MB1	4.42	4.61					
ZMCRD4V7MB2	4.55	4.75	5	130	5	10	1
ZMCRD4V7MB3	4.69	4.9					
ZMCRD5V1MB	4.84	5.37					
ZMCRD5V1MB1	4.84	5.04					
ZMCRD5V1MB2	4.98	5.2					
ZMCRD5V1MB3	5.14	5.37	5	80	5	5	2.5
ZMCRD5V6MB	5.31	5.92					
ZMCRD5V6MB1	5.31	5.55					
ZMCRD5V6MB2	5.49	5.73	5	50	5	2	3
ZMCRD5V6MB3	5.67	5.92					
ZMCRD6V2MB	5.86	6.53					
ZMCRD6V2MB1	5.86	6.12					
ZMCRD6V2MB2	6.06	6.33					
ZMCRD6V2MB3	6.26	6.53	5	30	5	2	4
ZMCRD6V8MB	6.47	7.14					
ZMCRD6V8MB1	6.47	6.73					
ZMCRD6V8MB2	6.65	6.93	5	30	5	2	5
ZMCRD6V8MB3	6.86	7.14					
ZMCRD7V5MB	7.06	7.84					
ZMCRD7V5MB1	7.06	7.36					
ZMCRD7V5MB2	7.28	7.6					
ZMCRD7V5MB3	7.52	7.84	5	30	5	2	5
ZMCRD8V2MB	7.76	8.64					
ZMCRD8V2MB1	7.76	8.1					
ZMCRD8V2MB2	8.02	8.36	5	30	5	2	5
ZMCRD8V2MB3	8.28	8.64					



®

## SEMTECH ELECTRONICS LTD.

(Subsidiary of Semtech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002 Certificate No. 05103  
 ISO 14001:2004 Certificate No. 7116  
 ISO 9001:2000 Certificate No. 0506098

Dated : 17/05/2006

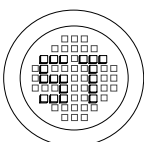
# ZMCRD...M Series

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

Type	Zener Voltage			Dynamic Impedance		Reverse Current	
	$V_Z$ (V) <sup>1)</sup>			$Z_Z$ ( $\Omega$ ) <sup>2)</sup>		$I_R$ ( $\mu\text{A}$ )	
	Min.	Max.	$I_Z$ (mA)	Max.	$I_Z$ (mA)	Max.	$V_R$ (V)
ZMCRD9V1MB	8.56	9.55	5	30	5	2	6
ZMCRD9V1MB1	8.56	8.93					
ZMCRD9V1MB2	8.85	9.23					
ZMCRD9V1MB3	9.15	9.55	5	30	5	2	7
ZMCRD10MB	9.45	10.55					
ZMCRD10MB1	9.45	9.87					
ZMCRD10MB2	9.77	10.21	5	30	5	2	8
ZMCRD10MB3	10.11	10.55					
ZMCRD11MB	10.44	11.56					
ZMCRD11MB1	10.44	10.88	5	30	5	2	9
ZMCRD11MB2	10.76	11.22					
ZMCRD11MB3	11.1	11.56					
ZMCRD12MB	11.42	12.6	5	35	5	2	10
ZMCRD12MB1	11.42	11.9					
ZMCRD12MB2	11.74	12.24					
ZMCRD12MB3	12.08	12.6	5	35	5	2	11
ZMCRD13MB	12.47	13.96					
ZMCRD13MB1	12.47	13.03					
ZMCRD13MB2	12.91	13.49	5	35	5	2	12
ZMCRD13MB3	13.37	13.96					
ZMCRD15MB	13.84	15.52					
ZMCRD15MB1	13.84	14.46	5	40	5	2	13
ZMCRD15MB2	14.34	14.98					
ZMCRD15MB3	14.85	15.52					
ZMCRD16MB	15.37	17.09	5	40	5	2	14
ZMCRD16MB1	15.37	16.01					
ZMCRD16MB2	15.85	16.51					
ZMCRD16MB3	16.35	17.09	5	45	5	2	15
ZMCRD18MB	16.94	19.03					
ZMCRD18MB1	16.94	17.7					
ZMCRD18MB2	17.56	18.35	5	45	5	2	16
ZMCRD18MB3	18.21	19.03					
ZMCRD20MB	18.86	21.08					
ZMCRD20MB1	18.86	19.7	5	50	5	2	17
ZMCRD20MB2	19.52	20.39					
ZMCRD20MB3	20.21	21.08					
ZMCRD22MB	20.88	23.17	5	55	5	2	18
ZMCRD22MB1	20.88	21.77					
ZMCRD22MB2	21.54	22.47					
ZMCRD22MB3	22.23	23.17	5	60	5	2	19
ZMCRD24MB	22.93	25.57					
ZMCRD24MB1	22.93	23.96					
ZMCRD24MB2	23.72	24.78	5	60	5	2	20
ZMCRD24MB3	24.54	25.57					
ZMCRD27MB	25.1	28.9					
ZMCRD30MB	28	32	2	80	2	2	23
ZMCRD33MB	31	35	2	80	2	2	25
ZMCRD36MB	34	38	2	90	2	2	27
ZMCRD39MB	37	41	2	100	2	2	30
ZMCRD43MB	40	45	2	130	2	2	33
ZMCRD47MB	44	49	2	150	2	2	36

<sup>1)</sup>  $V_Z$  is tested with pulse (20 ms).

<sup>2)</sup>  $Z_Z$  is measured at  $I_Z$  by given a very small A.C. Current Signal.



®

**SEMTECH ELECTRONICS LTD.**

(Subsidiary of Semtech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002  
Certificate No. 05103



ISO 14001:2004  
Certificate No. 7116



ISO 9001:2000  
Certificate No. 0506098

Dated : 17/05/2006