



Zener diode

Features

1. Saving space
2. Fits onto SOD 323/SOT 23 footprints
3. Micro Melf package



Applications

Circuits for constant voltage, constant current, waveform clipper, surge absorber, etc.

Absolute Maximum Ratings

$T_j=25\text{ }^{\circ}\text{C}$

Parameter	Symbol	Value	Unit
Forward Current	I_F	100	mA
Power Dissipation	P_V	200	mW
Surge Reverse Power	P_{RSM}	85	W
Junction Temperature	T_j	150	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-55~+150	$^{\circ}\text{C}$

Stresses exceeding maximum ratings may damage the device. Maximum ratings are stress ratings only. Functional operation above the recommended operating conditions is not implied. Extended exposure to stresses above the recommended operating conditions may affect device reliability.



Electrical Characteristics

T_j=25°C

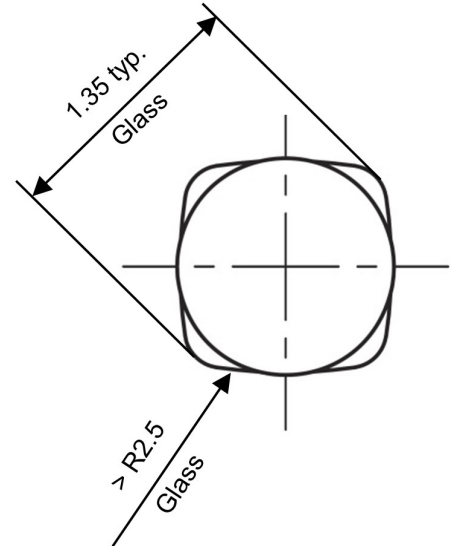
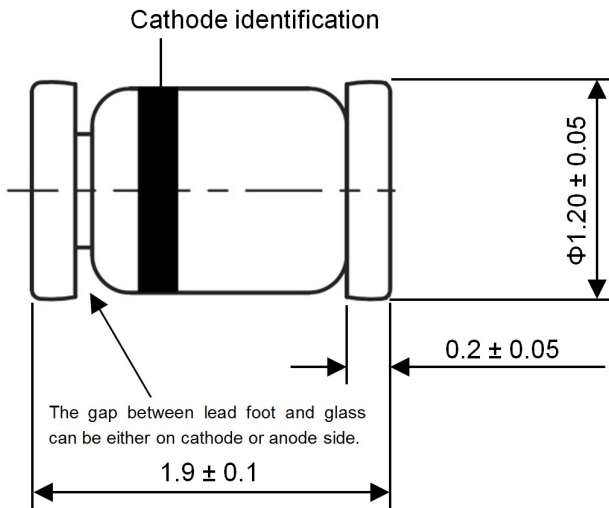
Type Number	Suffix	Zener voltage			Dynamic Impedance		Zener voltage Temp. coefficient		Reverse current	
		V _z (V)			Z _{zt} (Ω)		γ _z (mV/°C)		I _R (μA)	
		Min.	Max.	I _z (mA)	Max.	I _z (mA)	TYP.	I _z (mA)	Max.	V _R (V)
MRD 2.0S	B	1.90	2.20	5	100	5	-1.0	5	120	0.5
MRD 2.2 S	B	2.10	2.40	5	100	5	-1.5	5	120	0.7
MRD 2.4 S	B	2.30	2.60	5	100	5	-1.5	5	120	1.0
MRD 2.7 S	B	2.50	2.90	5	110	5	-1.5	5	100	1.0
	B1	2.50	2.75							
	B2	2.65	2.90							
MRD 3.0 S	B	2.80	3.20	5	120	5	-2.0	5	50	1.0
	B1	2.80	3.05							
	B2	2.95	3.20							
MRD 3.3 S	B	3.10	3.50	5	130	5	-2.0	5	20	1.0
	B1	3.10	3.35							
	B2	3.25	3.50							
MRD 3.6 S	B	3.40	3.80	5	130	5	-2.0	5	10	1.0
	B1	3.40	3.65							
	B2	3.55	3.80							
MRD 3.9 S	B	3.70	4.10	5	130	5	-2.0	5	10	1.0
	B1	3.70	3.97							
	B2	3.87	4.10							
MRD 4.3 S	B	4.00	4.49	5	130	5	-1.5	5	10	1.0
	B1	4.00	4.22							
	B2	4.14	4.35							
	B3	4.27	4.49							
MRD 4.7 S	B	4.40	4.92	5	130	5	-1.0	5	10	1.0
	B1	4.40	4.63							
	B2	4.53	4.77							
	B3	4.67	4.92							
MRD 5.1 S	B	4.82	5.39	5	130	5	0	5	5	1.5
	B1	4.82	5.06							
	B2	4.96	5.22							
	B3	5.12	5.39							
MRD 5.6 S	B	5.29	5.94	5	80	5	1.0	5	5	2.5
	B1	5.29	5.57							
	B2	5.47	5.75							
	B3	5.65	5.94							
MRD 6.2 S	B	5.84	6.55	5	50	5	2.5	5	2	3.0
	B1	5.84	6.14							
	B2	6.04	6.35							
	B3	6.24	6.55							



Type Number	Suffix	Zener voltage			Dynamic Impedance		Zener voltage Temp. coefficient		Reverse current	
		Vz (V)			Zzt (Ω)		γ_z (mV/°C)		I_R (μ A)	
		Min.	Max.	Iz (mA)	Max.	Iz (mA)	TYP.	Iz (mA)	Max.	V_R (V)
MRD 6.8 S	B	6.44	7.17	5	30	5	3.0	5	2	3.5
	B1	6.44	6.76							
	B2	6.62	6.96							
	B3	6.83	7.17							
MRD 7.5 S	B	7.03	7.87	5	30	5	3.5	5	2	4.0
	B1	7.03	7.39							
	B2	7.25	7.63							
	B3	7.49	7.87							
MRD 8.2 S	B	7.73	8.67	5	30	5	4.0	5	2	5.0
	B1	7.73	8.13							
	B2	7.98	8.39							
	B3	8.25	8.67							
MRD 9.1 S	B	8.53	9.58	5	30	5	5.0	5	2	6.0
	B1	8.53	8.96							
	B2	8.81	9.26							
	B3	9.12	9.58							
MRD 10 S	B	9.42	10.58	5	30	5	6.0	5	2	7.0
	B1	9.42	9.90							
	B2	9.74	10.24							
	B3	10.08	10.58							
MRD 11 S	B	10.40	11.60	5	30	5	7.0	5	2	8.0
	B1	10.40	10.92							
	B2	10.72	11.26							
	B3	11.06	11.60							
MRD 12 S	B	11.38	12.64	5	35	5	8.0	5	2	9.0
	B1	11.38	11.94							
	B2	11.69	12.28							
	B3	12.04	12.64							
MRD 13 S	B	12.43	14.00	5	35	5	9	5	2	10
MRD 15 S	B	13.80	15.56	5	40	5	10	5	2	11
MRD 16 S	B	15.31	17.14	5	40	5	12	5	2	12
MRD 18 S	B	16.89	19.08	5	45	5	13	5	2	13
MRD 20 S	B	18.80	21.14	5	50	5	15	5	2	15
MRD 22 S	B	20.81	23.25	5	55	5	17	5	2	17
MRD 24 S	B	22.86	25.66	5	60	5	20	5	2	19
MRD 27 S	B	25.10	28.90	2	70	2	22	2	2	21
MRD 30 S	B	28.00	32.00	2	80	2	26	2	2	23
MRD 33 S	B	31.00	35.00	2	80	2	29	2	2	25
MRD 36 S	B	34.00	38.00	2	90	2	32	2	2	27
MRD 39 S	B	37.00	41.00	2	100	2	36	2	2	30
MRD 43S	B	40.00	45.00	2	130	2	-	-	2	33
MRD 47S	B	44.00	49.00	2	150	2	-	-	2	36
MRD 51S	B	48.00	54.00	2	180	2	-	-	1	39
MRD 56S	B	53.00	60.00	2	180	2	-	-	1	43
MRD 62S	B	58.00	66.00	2	200	2	-	-	0.2	47
MRD 68S	B	64.00	72.00	2	250	2	-	-	0.2	52
MRD 75S	B	70.00	79.00	2	300	2	-	-	0.2	57



Dimensions in mm



Glass Case
Micro Melf