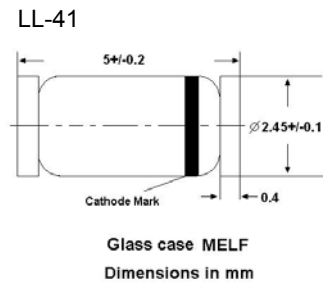


# ZMY5B1...ZMY39B

## Silicon Epitaxial Planar Power Zener Diodes

For use in stabilizing and clipping circuits with high power rating. Smaller voltage tolerances are upon request.



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

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

<sup>1)</sup> Valid provided that electrodes are kept at ambient temperature.

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

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient Air	$R_{\text{thA}}$	170 <sup>1)</sup>	K/W
Forward Voltage at $I_F = 200\text{ mA}$	$V_F$	1.2	V

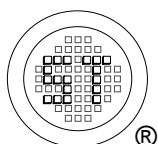
<sup>1)</sup> Valid provided that electrodes are kept at ambient temperature.

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

Type	Zener Voltage <sup>2)</sup>		Dynamic Resistance		Reverse Current		Admissible Zener Current <sup>1)</sup> $I_{ZM}$ (mA)	
	$V_Z$		at $I_{ZT}$	at $I_{ZT}$	$I_R$	at $V_R$		
	Min. (V)	Max. (V)	(mA)	Max. ( $\Omega$ )	(mA)	Max. ( $\mu\text{A}$ )		(V)
ZMY5B1	4.99	5.2	100	5	100	10	1	150
ZMY5B6	5.49	5.71	100	2	100	0.5	2	135
ZMY6B2	6.07	6.32	100	2	100	0.5	3	128
ZMY6B8	6.66	6.94	100	2	100	0.5	4	110
ZMY7B5	7.35	7.65	100	2	100	0.5	5	100
ZMY8B2	8.04	8.36	100	2	100	0.5	6	89
ZMY9B1	8.92	9.28	50	4	50	0.5	7	82
ZMY10B	9.8	10.2	50	4	50	0.5	7.6	74
ZMY11B	10.8	11.2	50	7	50	0.5	8.4	66
ZMY12B	11.8	12.2	50	7	50	0.5	9.1	60
ZMY13B	12.7	13.3	50	9	50	0.5	9.9	55
ZMY15B	14.7	15.3	50	9	50	0.5	11.4	49
ZMY16B	15.7	16.3	25	10	25	0.5	12.2	44
ZMY18B	17.6	18.4	25	11	25	0.5	13.7	40
ZMY20B	19.6	20.4	25	12	25	0.5	15.2	36
ZMY22B	21.6	22.5	25	13	25	0.5	16.7	34
ZMY24B	23.5	24.5	25	14	25	0.5	18.2	29
ZMY27B	26.4	27.6	25	15	25	0.5	20.6	27
ZMY30B	29.4	30.6	25	20	25	0.5	22.8	25
ZMY33B	32.3	33.7	25	20	25	0.5	25.1	22
ZMY36B	35.2	36.8	10	60	10	0.5	27.4	20
ZMY39B	38.2	39.8	10	60	10	0.5	29.7	18

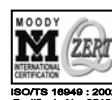
<sup>1)</sup> Valid provided that electrodes are kept at ambient temperature.

<sup>2)</sup> Tested with pulses  $t_p = 20\text{ ms}$



**SEMTECH ELECTRONICS LTD.**

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



Dated : 18/07/2009