

SILICON PLANAR POWER ZENER DIODES

ZMY4.7 - ZMY100

**LL-41 (MELF)
GLASS PACKAGE**



For use in Stabilizing and Clipping Circuits with High Power Rating

Hermetically Sealed, Glass Silicon Diodes

Marking: With Cathode Band

ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

DESCRIPTION	SYMBOL	VALUE	UNIT
Power Dissipation	*P _D	1.3	W
Non Repetitive Peak Power Dissipation, t <10ms	P _{zsm}	5.0	W
Junction Temperature	T _j	175	°C
Storage Temperature Range	T _{stg}	- 55 to +175	°C

THERMAL CHARACTERISTICS

Junction to Ambient in free air	*R _{th(j-a)}	115.3	K/W
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ELECTRICAL CHARACTERISTICS (T_a=25°C unless specified otherwise)

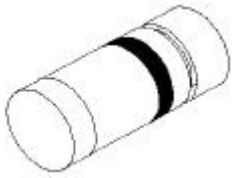
V_F <1.2V at 200mA

Device #	**Zener Voltage		Dynamic Resistance	Temp. Coeff. of Zener volt.	Test Current	Reverse Voltage	*Admissible Zener Current at I _Z test
	V _Z at I _{ZT}						
	(V)		r _{zj} (W)	a V _Z 10 ⁻⁴ /K	(mA)	V _R (V)	(mA)
	min	max	max				
ZMY4.7	4.4	5.0	7	-7.....+4	100	>0.5	165
ZMY5.1	4.8	5.4	5	-6.....+5	100	>0.7	150
ZMY5.6	5.2	6.0	2	-3.....+5	100	>1.5	135
ZMY6.2	5.8	6.6	2	-1.....+6	100	>2.0	128
ZMY6.8	6.4	7.2	2	0.....7	100	>3.0	110
ZMY7.5	7.0	7.9	2	0.....7	100	>5.0	100
ZMY8.2	7.7	8.7	2	+3.....+8	100	>6.0	89
ZMY9.1	8.5	9.6	4	+3.....+8	50	>7.0	82
ZMY10	9.4	10.6	4	+5.....+9	50	>7.5	74
ZMY11	10.4	11.6	7	+5.....+10	50	>8.5	66
ZMY12	11.4	12.7	7	+5.....+10	50	>9.0	60
ZMY13	12.4	14.1	9	+5.....+10	50	>10	55
ZMY15	13.8	15.8	9	+5.....+10	50	>11	49
ZMY16	15.3	17.1	10	+7.....+11	25	>12	44
ZMY18	16.8	19.1	11	+7.....+11	25	>14	40
ZMY20	18.8	21.2	12	+7.....+11	25	>15	36
ZMY22	20.8	23.3	13	+7.....+11	25	>17	34
ZMY24	22.8	25.6	14	+7.....+12	25	>18	29
ZMY27	25.1	28.9	15	+7.....+12	25	>20	27
ZMY30	28.0	32.0	20	+7.....+12	25	>22.5	25
ZMY33	31.0	35.0	20	+7.....+12	25	>25	22
ZMY36	34.0	38.0	60	+7.....+12	10	>27	20

*Valid provided that electrodes are kept at ambient temperature

**Pulse Condition : 20ms ≤ tp ≤ 50ms

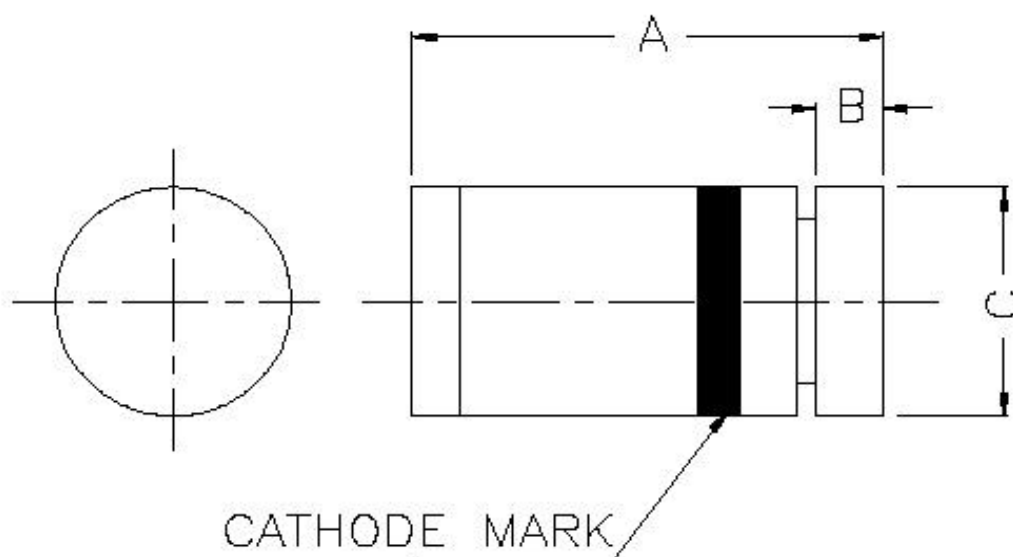
ZMY4.7_100V Rev081105E

ELECTRICAL ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ unless specified otherwise) $V_F < 1.2\text{V}$ at 200mA

Device #	**Zener Voltage		Dynamic Resistance	Temp. Coeff. of Zener volt.	Test Current	Reverse Voltage	*Admissible Zener Current
	V_Z at I_{ZT}		at I_Z test	at I_Z test	at I_Z test	$I_R = 0.5\text{mA}$	at I_Z test
	(V)		r_{zj} (W)	$a V_Z 10^{-4}/\text{K}$	(mA)	V_R (V)	(mA)
	min	max	max				
ZMY39	37.0	41.0	60	+8.....+12	10	>29	18
ZMY43	40.0	46.0	80	+8.....+13	10	>32	17
ZMY47	44.0	50.0	80	+8.....+13	10	>35	15
ZMY51	48.0	54.0	100	+8.....+13	10	>38	14
ZMY56	52.0	60.0	100	+8.....+13	10	>42	13
ZMY62	58.0	66.0	130	+8.....+13	10	>47	11
ZMY68	64.0	72.0	130	+8.....+13	10	>51	10
ZMY75	70.0	79.0	160	+8.....+13	10	>56	9
ZMY82	77.0	88.0	160	+8.....+13	10	>61	8
ZMY91	85.0	96.0	250	+9.....+13	5	>68	7.5
ZMY100	94.0	106	250	+9.....+13	5	>75	7

*Valid provided that electrodes are kept at ambient temperature

**Pulse Condition : $20\text{ms} \leq t_p \leq 50\text{ms}$

PACKAGE LL-41 MELF

DIM	MIN.	MAX.
A	4.8	5.2
B	0.4	—
C	∅2.35	∅2.55

All dimensions are in mm

PACKING:— 5K/REEL

Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

Disclaimer

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Continental Device India Limited

C-120 Naraina Industrial Area, New Delhi 110 028, India.

Telephone + 91-11-2579 6150, 5141 1112 Fax + 91-11-2579 5290, 5141 1119
email@cdil.com www.cdilsemi.com