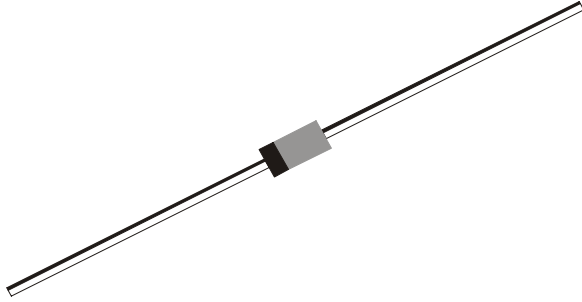


SILICON GLASS PASSIVATED 1.3 WATT ZENER DIODES

BZX85C4V7-100V

**DO-41
Glass Axial Package**



DESCRIPTION

1.3W Hermetically Sealed Glass Silicon Zener Diodes

ABSOLUTE MAXIMUM RATINGS (T_a=°C)

DESCRIPTION	SYMBOL	VALUE	UNIT
Power Dissipation	*P _D	1.3	W
Operating and Storage Temperature Range	T _{stg} , T _J	- 55 to+175	°C
Maximum Lead Temperature for Soldering during 10s @ 4mm from Case	T _L	230	°C

THERMAL RESISTANCE

Junction to Ambient in free air	*R _{th (j-a)}	110	°C/W
---------------------------------	------------------------	-----	------

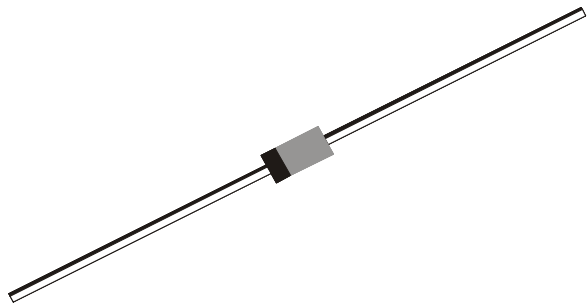
*On infinite heatsink with 4mm lead length

ELECTRICAL CHARACTERISTICS (T_a=25°C V_F <1.0V @ 200mA)

Device	**V _{ZT} / I _{ZT}		r _{zt} / I _{ZT}	I _{ZT}	r _{zk} / I _{ZK}		aVZ		I _R @ 25°C	I _R @ 150°C	V _R	I _{ZM}	***I _{ZSM}
	MIN	MAX	MAX		MAX		MIN	MAX	Max	Max			
	(V)		(W)	(mA)	(W)	(mA)	(10 ⁻⁴ /°C)		(mA)	(mA)	(V)	(mA)	(mA)
BZX85C4V7	4.4	5.0	13	45	500	1.00	-3	4	3	10	1.0	215	1667
BZX85C5V1	4.8	5.4	10	45	500	1.00	-1	4	1	10	1.5	200	1543
BZX85C5V6	5.2	6.0	7	45	400	1.00	0	4.5	1	10	2.0	190	1389
BZX85C6V2	5.8	6.6	4	35	300	1.00	1	5.5	1	10	3.0	170	1263
BZX85C6V8	6.4	7.2	3.5	35	300	1.00	1.5	6	1	10	4.0	155	1157
BZX85C7V5	7.0	7.9	3	35	200	0.50	2	6.5	1	10	4.5	140	1055
BZX85C8V2	7.7	8.7	5	25	200	0.50	3	7	1	10	6.2	130	958
BZX85C9V1	8.5	9.6	5	25	200	0.50	3.5	7.5	1	10	6.8	120	868
BZX85C10	9.4	10.6	7	25	200	0.50	4	8	0.5	10	7.5	105	786
BZX85C11	10.4	11.6	8	20	300	0.50	4.5	8	0.5	10	8.2	97	718
BZX85C12	11.4	12.7	9	20	350	0.50	4.5	8.5	0.5	10	9.1	88	656
BZX85C13	12.4	14.1	10	20	400	0.50	5	8.5	0.5	10	10	79	591
BZX85C15	13.8	15.6	15	15	500	0.50	5.5	9	0.5	10	11	71	534
BZX85C16	15.3	17.1	15	15	500	0.50	5.5	9	0.5	10	12	66	487
BZX85C18	16.8	19.1	20	15	500	0.50	6	9	0.5	10	13	62	436
BZX85C20	18.8	21.2	24	10	600	0.50	6	9	0.5	10	15	56	393
BZX85C22	20.8	23.2	25	10	600	0.50	6	9.5	0.5	10	16	52	358
BZX85C24	22.8	25.6	25	10	600	0.50	6	9.5	0.5	10	18	47	326
BZX85C27	25.1	28.9	30	8	750	0.25	6	9.5	0.5	10	20	41	288
BZX85C30	28.0	32.0	30	8	1000	0.25	6	9.5	0.5	10	22	36	260

** Pulse Condition : 20ms ≤ t_p ≤ 50ms

*** Rectangle wave form (t_p=10ms)

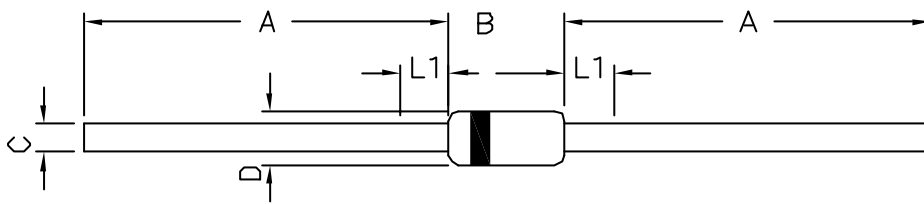
ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$ $V_F < 1.0\text{V}$ @ 200mA)

Device	V_{ZT} / I_{ZT}		r_{zt} / I_{ZT}	I_{ZT}	r_{zk} / I_{zk}		aVZ		I_R	I_R	V_R	I_{ZM}	I_{ZSM}
	MIN	MAX	MAX		MAX		MIN	MAX	@ 25°C Max	@ 150°C Max			
	(V)		(W)	(mA)	(W)	(mA)	$(10^{-4}/^{\circ}\text{C})$		(mA)	(mA)	(V)	(mA)	(mA)
BZX85C33	31	35	35	8	1000	0.25	6	9.5	0.5	10	24	33	238
BZX85C36	34	38	40	8	1000	0.25	6	9.5	0.5	10	27	30	219
BZX85C39	37	41	50	6	1000	0.25	6	9.5	0.5	10	30	28	203
BZX85C43	40	46	50	6	1000	0.25	6	9.5	0.5	10	33	26	181
BZX85C47	44	50	90	4	1500	0.25	6	9.5	0.5	10	36	23	167
BZX85C51	48	54	115	4	1500	0.25	6	9.5	0.5	10	39	21	154
BZX85C56	52	60	120	4	2000	0.25	6	9.5	0.5	10	43	19	139
BZX85C62	58	66	125	4	2000	0.25	6	9.5	0.5	10	47	16	126
BZX85C68	64	72	130	4	2000	0.25	6	9.5	0.5	10	51	15	116
BZX85C75	70	80	135	4	2000	0.25	6	9.5	0.5	10	56	14	104
BZX85C82	77	87	200	2.7	3000	0.25	7	12	0.5	10	62	12	96
BZX85C91	85	96	250	2.7	3000	0.25	7	12	0.5	10	68	10	87
BZX85C100	94	106	350	2.7	3000	0.25	7	12	0.5	10	75	9.4	79

** Pulse Condition : $20\text{ms} \leq t_p \leq 50\text{ms}$ *** Rectangle wave form ($t_p=10\text{ms}$)

DO-41 Glass Axial Package

DO-41 Glass Axial Package

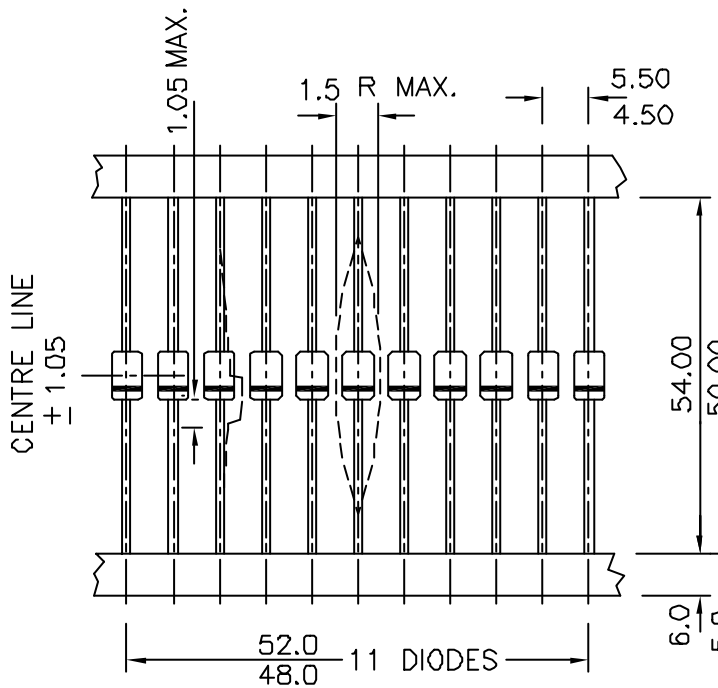


DIM	MIN	MAX
A	25.40	-
B	4.07	5.20
C	0.72	0.86
D	2.04	2.71
L1	-	1.27

NOTES:-

Cathode is marked by Band.
All Dimensions Are In mm.

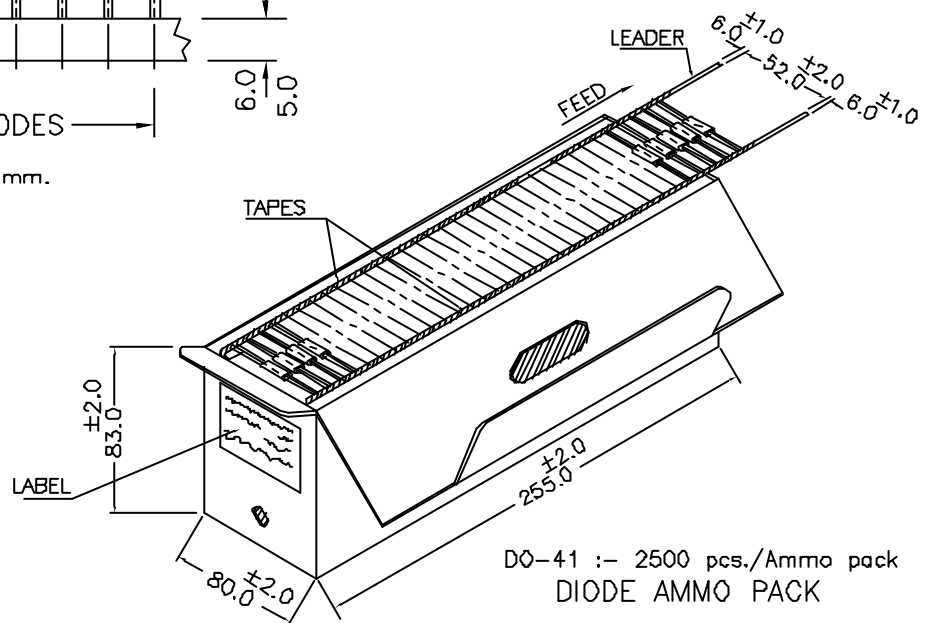
DO-41, 52mm Taping Specification



All Dimensions Are In mm.

52mm Taping Specification

1. T & A Indicates Axial Tape & Ammo packing (52 mm Tape Spacing)
2. 300 mm (min) leader tape on every spool.
3. No. of empty places allowed 0.25% without consecutive empty places.
4. Ends of leads shall preferably not protrude beyond the tapes.
5. Components shall be held sufficiently in the tape or tapes so that they can not come free in normal handling.



on request also available in 26 mm Tape and Ammo Pack

Packing Detail

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/Qty	Size	Qty	Size	Qty	Qty
DO-41 T&A	2.5K/ammo box	1.04kg/2.55K pcs	10"X3.5"X3.5"	2.5K	12.7"X12.7"X20"	62.5K	30Kgs

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD is believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

CDIL strives for continuous improvement and reserves the right to change the specifications of its products without prior notice.



CDIL is a registered Trademark of
Continental Device India Limited

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

Telephone + 91-11-2579 6150, 4141 1112 Fax + 91-11-2579 5290, 4141 1119
email@cdil.com www.cdilsemi.com