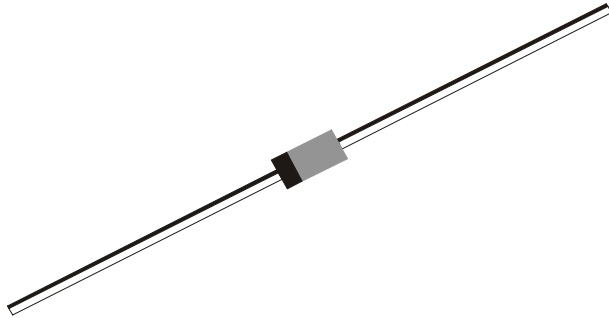


**SILICON PLANAR ZENER DIODES**

**BZX85C 2V7 to 51V  
DO-41 1.3W**



These Zeners Are Best Suited For Industrial Purpose, Military & Space Applications. When Hermetically Sealed in Glass With Double Stud. This Glass Passivated Chip Provides Excellent Stability & Reliability.

**ABSOLUTE MAXIMUM RATINGS (Ta=25 deg C)**

DESCRIPTION	SYMBOL	VALUE	UNIT
Power Dissipation (1)	PTA	1.3	W
Surge Power Dissipation pulse Width =10ms	PS	10	W
Operating And Storage Junction Temperature Range	Tj, Tstg	-55 to +175	deg C
Maximum Lead Temperature for Soldering During 10 sec @ 4mm From Case	TL	230	deg C
Thermal Resistance Junction to Ambient (1)	Rth(j-a)	115.4	deg C/mW
Forward Voltage @ IF=200mA	VF	1.0	V

(1) On infinite heatsink with 4mm Lead Length

**ELECTRICAL CHARACTERISTICS (Ta=25 deg C Unless otherwise Specified)**

Device	VZT		rZT	IZT	rZK	IZK	Temp. Coeff of Zener Voltage typ	IR		VR	IZM	IZSM##	
	@ IZT*	min (V)	max (V)	@ IZT*	max (ohm)	@ IZK		max (mA)	max (uA)				@ 150degC
BZX85C 2V7		2.50	2.90	20	80	400	1.0	-0.07	150	300	1.0	370	2874
BZX85C 3V0		2.80	3.20	20	80	400	1.0	-0.07	100	300	1.0	340	2604
BZX85C 3V3		3.10	3.50	20	80	400	1.0	-0.06	40	200	1.0	320	2381
BZX85C 3V6		3.40	3.80	20	70	500	1.0	-0.06	20	50	1.0	290	2193
BZX85C 3V9		3.70	4.10	15	60	500	1.0	-0.05	10	20	1.0	280	2033
BZX85C 4V3		4.00	4.60	13	50	500	1.0	-0.03	3.0	10	1.0	250	1812
BZX85C 4V7		4.40	5.00	13	45	500	1.0	-0.01	3.0	10	1.0	215	1667
BZX85C 5V1		4.80	5.40	10	45	500	1.0	+0.01	1.0	10	1.5	200	1543
BZX85C 5V6		5.20	6.00	7	45	400	1.0	+0.03	1.0	10	2.0	190	1389
BZX85C 6V2		5.80	6.60	4	35	300	1.0	+0.04	1.0	10	3.0	170	1263
BZX85C 6V8		6.40	7.20	3.5	35	300	1.0	+0.05	1.0	10	4.0	155	1157
BZX85C 7V5		7.00	7.90	3	35	200	0.5	+0.05	1.0	10	4.5	140	1055
BZX85C 8V2		7.70	8.70	5	25	200	0.5	+0.06	1.0	10	6.2	130	958
BZX85C 9V1		8.50	9.60	5	25	200	0.5	+0.06	1.0	10	6.8	120	868
BZX85C 10		9.40	10.60	7.5	25	200	0.5	+0.07	0.5	10	7.0	105	786
BZX85C 11		10.40	11.60	8	20	300	0.5	+0.07	0.5	10	8.2	97	718
BZX85C 12		11.40	12.70	9	20	350	0.5	+0.07	0.5	10	9.1	88	656
BZX85C 13		12.40	14.10	10	20	400	0.5	+0.07	0.5	10	10	79	591
BZX85C 15		13.80	15.60	15	15	500	0.5	+0.08	0.5	10	11	71	534
BZX85C 16		15.30	17.10	15	15	500	0.5	+0.08	0.5	10	12	66	487
BZX85C 18		16.80	19.10	20	15	500	0.5	+0.08	0.5	10	13	62	436
BZX85C 20		18.80	21.20	24	10	600	0.5	+0.08	0.5	10	15	56	393
BZX85C 22		20.80	23.30	25	10	600	0.5	+0.08	0.5	10	16	52	358
BZX85C 24		22.80	25.60	25	10	600	0.5	+0.08	0.5	10	18	47	326

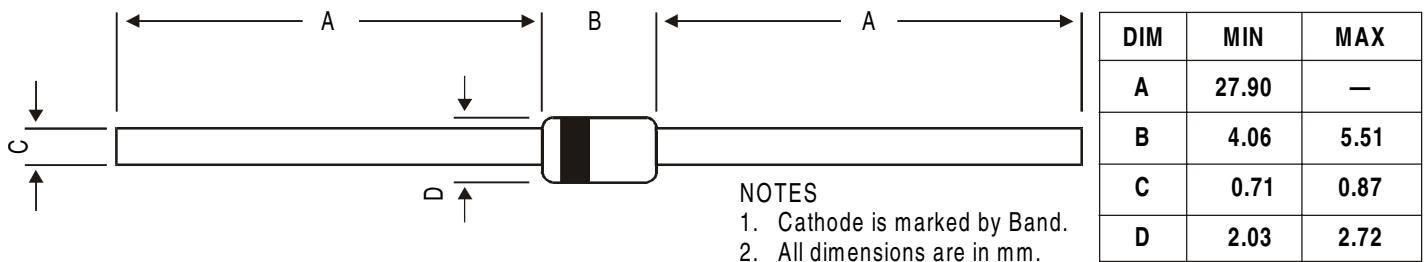
**ELECTRICAL CHARACTERISTICS (Ta=25 deg C Unless otherwise Specified)**

Device	VZT		rZT	IZT	rZK	IZK	Temp. Coeff of Zener Voltage	IR	@	VR	IZM	IZSM##
	@IZT*		@IZT*		@IZK							
	min (V)	max (V)	max (ohm)	(mA)	max (ohm)	(mA)	typ (%/deg C)	max (uA)	max (uA)	(V)	(mA)	(mA)
BZX85C 27	25.10	28.90	30	8.0	750	0.25	+0.09	0.5	10	20	41	288
BZX85C 30	28.00	32.00	30	8.0	1000	0.25	+0.09	0.5	10	22	36	260
BZX85C 33	31.00	35.00	35	8.0	1000	0.25	+0.09	0.5	10	24	33	238
BZX85C 36	34.00	38.00	40	8.0	1000	0.25	+0.09	0.5	10	27	30	219
BZX85C 39	37.00	41.00	50	6.0	1000	0.25	+0.09	0.5	10	30	28	203
BZX85C 43	40.00	46.00	50	6.0	1000	0.25	+0.09	0.5	10	33	26	181
BZX85C 47	44.00	50.00	90	4.0	1500	0.25	+0.09	0.5	10	36	23	167
BZX85C 51	48.00	54.00	115	4.0	1500	0.25	+0.09	0.5	10	39	21	154

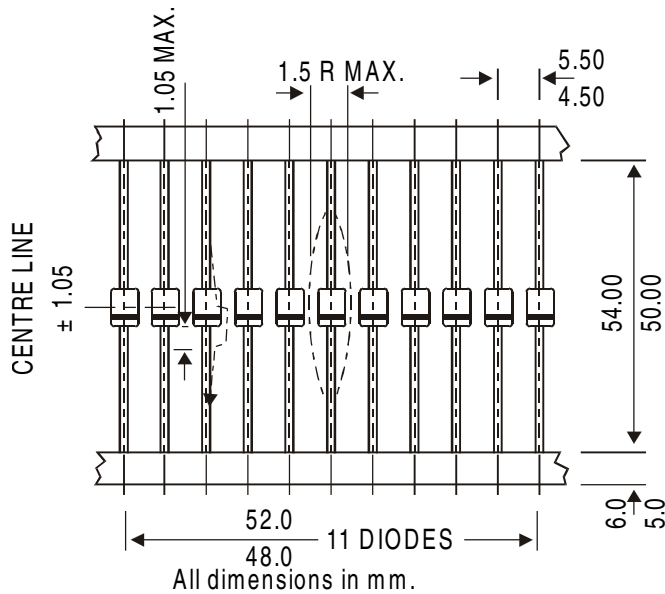
\*Pulse Condition : 20ms <=tp<=50ms, Duty Cycle =2%

## Rectangular wave form (tp=10ms)

**DO-41 Glass Axial Package**

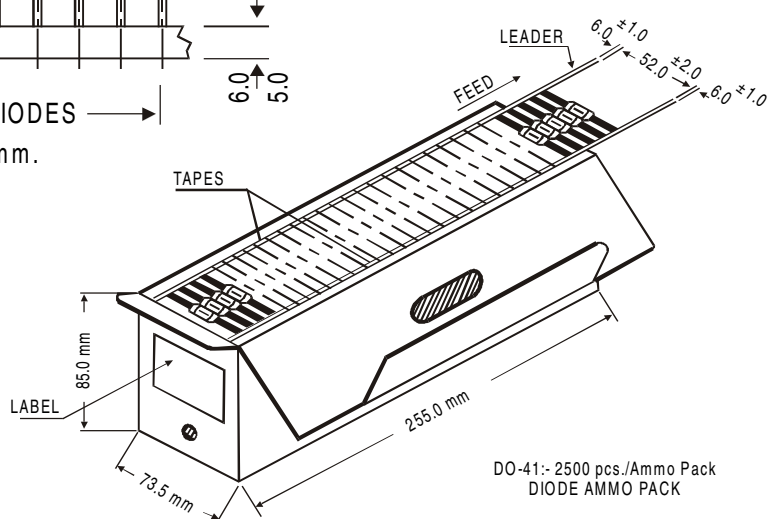


**DO-41, 52mm Taping Specification**



**52 mm Taping Specification**

1. T & A indicates Axil 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	Gr Wt
DO-41 T&A	2.5K/ammo box	1.04 kg/2.5K pcs	10" x 3.5" x 3.5"	2.5K	12.7" x 12.7" x 20"	62.5K	30 kgs

### Notes

### Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Discrete 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 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 Discrete 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).

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