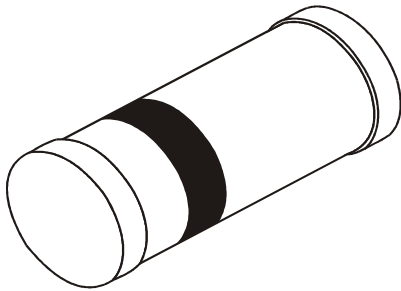


**SILICON PLANAR ZENER DIODES**

**BZV55C 3V6 to 75V**



**SOD - 80C  
Mini MELF (LL-34)**

**Polarity : Cathode is indicated by a blue band**

**Hermetically Sealed, Glass Silicon Diodes**

**ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub>=25°C)**

DESCRIPTION	SYMBOL	VALUE	UNIT
Average Forward Current (averaged Over any 20 ms period)	I <sub>F(av)</sub>	250	mA
Repetitive Peak Forward Current	I <sub>FRM</sub>	250	mA
Total Power Dissipation up to T <sub>flange</sub> =50°C	P <sub>tot</sub>	500	mW
Up to T <sub>a</sub> =50°C and Mounted on a Ceramic Substrate of 10mm x 10mm x 0.6mm	P <sub>tot</sub>	400	mW
Non-Repetitive Peak Reverse Power Dissipation t=100ms, T <sub>j</sub> =150°C	P <sub>ZSM</sub>	30	W
Storage Temperature	T <sub>stg</sub>	- 65 to +200	°C
Junction Temperature	T <sub>j</sub>	200	°C
<b>Thermal Resistance</b>			
From Junction to tie-point (flanges)	R <sub>th (j-tp)</sub>	0.30	K/mW
From Junction to Ambient when Mounted on a Ceramic Substrate of 10 mm x 10 mm x 0.6 mm	R <sub>th (j-a)</sub>	0.38	K/mW

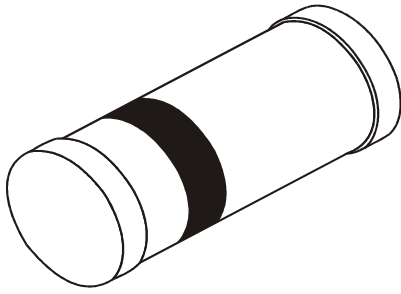
**ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C unless specified otherwise)**

**V<sub>F</sub>=0.9V max @ 10mA**

Device	Working Voltage* +/- 5% V <sub>Z</sub> (V) @ I <sub>Z test</sub> =5mA		Differential * Resistance r <sub>diff</sub> (W) @ I <sub>Z test</sub> =5mA max	Temperature Coefficient S <sub>Z</sub> (mV/K) @ I <sub>Z test</sub> =5mA		Differential Resistance r <sub>diff</sub> (W) @ I <sub>Z test</sub> =1mA max	I <sub>R</sub> @ T <sub>a</sub> 25°C (mA) max	V <sub>R</sub> (V)
	min	max		min	max			
BZV55C 3V6	3.40	3.80	90	-3.5	0	600	5.0	1.0
BZV55C 3V9	3.70	4.10	90	-3.5	0	600	3.0	1.0
BZV55C 4V3	4.00	4.60	90	-3.5	0	600	3.0	1.0
BZV55C 4V7	4.40	5.00	80	-3.5	0.2	500	3.0	2.0
BZV55C 5V1	4.80	5.40	60	-2.7	1.2	480	2.0	2.0
BZV55C 5V6	5.20	6.00	40	-2.0	2.5	400	1.0	2.0
BZV55C 6V2	5.80	6.60	10	0.4	3.7	150	3.0	4.0
BZV55C 6V8	6.40	7.20	15	1.2	4.5	80	2.0	4.0
BZV55C 7V5	7.00	7.90	15	2.5	5.3	80	1.0	5.0
BZV55C 8V2	7.70	8.70	15	3.2	6.2	80	0.7	5.0
BZV55C 9V1	8.50	9.60	15	3.8	7.0	100	0.5	6.0
BZV55C 10	9.40	10.60	20	4.5	8.0	150	0.2	7.0
BZV55C 11	10.40	11.60	20	5.4	9.0	150	0.1	8.0
BZV55C 12	11.40	12.70	25	6.0	10.0	150	0.1	8.0
BZV55C 13	12.40	14.10	30	7.0	11.0	170	0.1	8.0
BZV55C 15	13.80	15.60	30	9.2	13.0	200	0.05	10.5

**SILICON PLANAR ZENER DIODES**

**BZV55C 3V6 to 75V**



**SOD - 80C  
Mini MELF (LL-34)**

**Polarity : Cathode is indicated by a blue band**

**ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C unless specified otherwise)**

**V<sub>F</sub>=0.9V max @ 10mA**

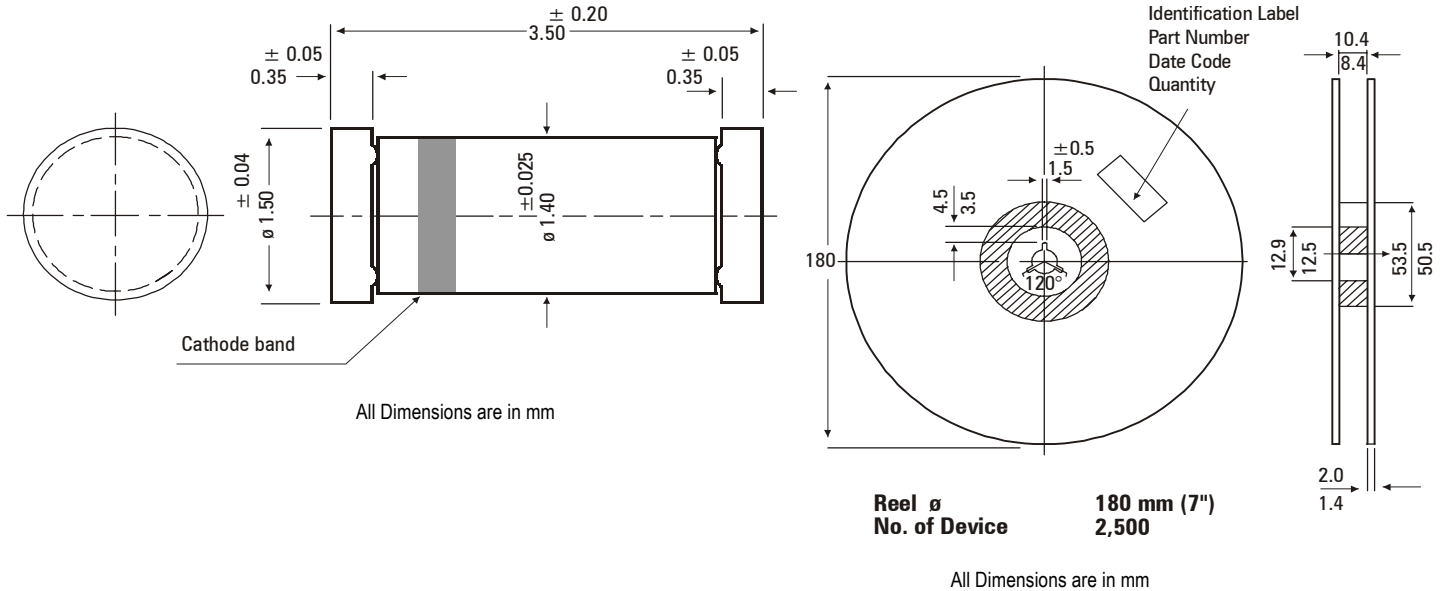
Device	Working Voltage* +/- 5% V <sub>Z</sub> (V) @ I <sub>Z test</sub> =5mA		Differential * Resistance r <sub>diff</sub> (W) @ I <sub>Z test</sub> =5mA max	Temperature Coefficient S <sub>Z</sub> (mV/K) @ I <sub>Z test</sub> =5mA		Differential Resistance r <sub>diff</sub> (W) @ I <sub>Z test</sub> =1mA max	I <sub>R</sub> @ T <sub>a</sub> 25°C (mA) max	V <sub>R</sub> (V)
	min	max		min	max			
BZV55C 16	15.30	17.10	40	10.4	14.0	200	0.05	11.2
BZV55C 18	16.80	19.10	45	12.4	16.0	225	0.05	12.6
BZV55C 20	18.80	21.20	55	14.4	18.0	225	0.05	14.0
BZV55C 22	20.80	23.30	55	16.4	20.0	250	0.05	15.4
BZV55C 24	22.80	25.60	70	18.4	22.0	250	0.05	16.8
	<b>@ I<sub>Z test</sub>=2mA</b>		<b>@ I<sub>Z test</sub>=2mA</b>	<b>@ I<sub>Z test</sub>=2mA</b>		<b>@ I<sub>Z test</sub>=0.5mA</b>		
BZV55C 27	25.10	28.90	80	21.4	25.3	300	0.05	18.9
BZV55C 30	28.00	32.00	80	24.4	29.4	300	0.05	21.0
BZV55C 33	31.00	35.00	80	27.4	33.4	325	0.05	23.1
BZV55C 36	34.00	38.00	90	30.4	37.4	350	0.05	25.2
BZV55C 39	37.00	41.00	130	33.4	41.2	350	0.05	27.3
BZV55C 43	40.00	46.00	150	37.6	46.6	375	0.05	30.1
BZV55C 47	44.00	50.00	170	42.0	51.8	375	0.05	32.9
BZV55C 51	48.00	54.00	180	46.6	57.2	400	0.05	35.7
BZV55C 56	52.00	60.00	200	52.2	63.8	425	0.05	39.2
BZV55C 62	58.00	66.00	215	58.8	71.6	450	0.05	43.4
BZV55C 68	64.00	72.00	240	65.6	79.8	475	0.05	47.6
BZV55C 75	70.00	79.00	255	73.4	88.6	500	0.05	52.5

**\*Pulse test: 20ms ≤ tp ≤ 50ms**

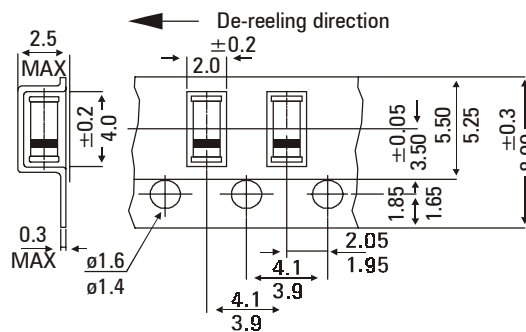
BZV55C3V6\_75Rev\_1 080402E

**SOD - 80C  
Mini MELF (LL-34)**

**SOD 80C (LL-34) Mini MELF Hermetically Sealed Glass Package**

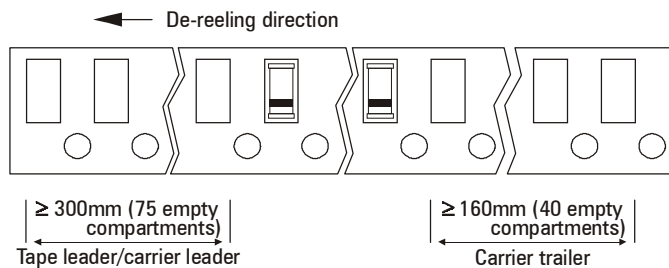


**TAPE & REEL**



**Notes:**

1. Maximum of 0.5% of the total number of components per reel may be missing-exclusively at the beginning and at the end of the reel.
2. A maximum of three consecutive components may be missing, provided this gap is followed by six consecutive components.



All Dimensions are in mm

Drawings are not to scale

**Packing Detail**

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/Qty	Size	Qty	Size	Qty	Gr Wt
SOD-80C T&R	2.5K/reel	225 gm/2.5K pcs	9" x 9" x 9"	40K	18" x 12" x 10" 19" x 19" x 20"	80K 320K	7.2 kgs 28.8 kgs

### **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).

### **Customer Notes**

### **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 are 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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