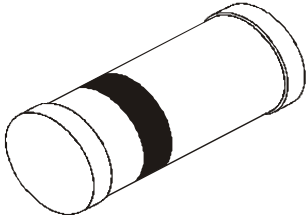


**SILICON PLANAR ZENER DIODES**

**CLL5227 to CLL5261**



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

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

**Hermetically Sealed, Glass Silicon Zener Diodes**

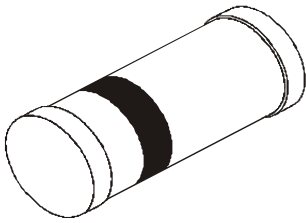
**ABSOLUTE MAXIMUM RATINGS.**

DESCRIPTION	SYMBOL	VALUE	UNIT
DC Power Dissipation at $T_a=50^\circ\text{C}$ Derating above $T_a= 50^\circ\text{C}$	PD	500 3.3	mW mW/ $^\circ\text{C}$
Operating and Storage JunctionTemperature Range	$T_j, T_{stg}$	- 65 to +200	$^\circ\text{C}$

**ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$  unless specified otherwise)**

Forward Voltage at  $I_F=200\text{mA}$   $V_F < 1.1\text{ V}$

DEVICE# (Note1)	NOMINAL ZENER VOLTAGE $V_Z$ at $I_{ZT}$ (Volts) (Note2)	TEST CURRENT $I_{ZT}$ (mA) (Note2)	MAX ZENER IMPEDANCE A&B SUFFIX ONLY		MAX REVERSE LEAKAGE CURRENT				MAX ZENER VOLTAGE TEMP.COEFF. (A&B SUFFIX ONLY) $*V_Z^{(}/\%/\text{C}$ Note(3)
			$Z_{ZT}$ at $I_{ZT}$ (W)	$Z_{ZK}$ at $I_{ZK}=0.25\text{mA}$ (W)	A & B SUFFIX ONLY		NON SUFFIX $I_R$ at $V_R$ Used for Suffix A (mA)		
					$I_R$ (mA)	$V_R$ (Volts) A		$V_R$ (Volts) B	
CLL5227A	3.6	20	24	1700	15	0.95	1.0	100	-0.065
CLL5228A	3.9	20	23	1900	10	0.95	1.0	75	-0.06
CLL5229A	4.3	20	22	2000	5.0	0.95	1.0	50	-0.055
CLL5230A	4.7	20	19	1900	5.0	1.9	2.0	50	+ -0.030
CLL5231A	5.1	20	17	1600	5.0	1.9	2.0	50	+ -0.030
CLL5232A	5.6	20	11	1600	5.0	2.9	3.0	50	+0.038
CLL5233A	6.0	20	7.0	1600	5.0	3.3	3.5	50	+0.038
CLL5234A	6.2	20	7.0	1000	5.0	3.8	4.0	50	+0.045
CLL5235A	6.8	20	5.0	750	3.0	4.8	5.0	30	+0.05
CLL5236A	7.5	20	6.0	500	3.0	5.7	6.0	30	+0.058
CLL5237A	8.2	20	8.0	500	3.0	6.2	6.5	30	+0.062
CLL5238A	8.7	20	8.0	600	3.0	6.2	6.5	30	+0.065
CLL5239A	9.1	20	10	600	3.0	6.7	7.0	30	+0.068
CLL5240A	10	20	17	600	3.0	7.6	8.0	30	+0.075



SOD - 80C  
Mini MELF (LL-34)

Polarity : Cathode is indicated by a blue band

ELECTRICAL CHARACTERISTICS ( $T_a=25^{\circ}\text{C}$  unless specified otherwise)

Forward Voltage at  $I_F=200\text{mA}$

$V_F < 1.1 \text{ V}$

DEVICE# (Note1)	NOMINAL ZENER VOLTAGE $V_Z$ at $I_{ZT}$ (Volts) (Note2)	TEST CURRENT $I_{ZT}$ (mA) (Note2)	MAX ZENER A&B SUFFIX ONLY		MAX REVERSE LEAKAGE CURRENT				MAX ZENER VOLTAGE TEMP. COEFF. (A&B SUFFIX ONLY) $*V_Z$ (%/°C) Note(3)
			$Z_{ZT}$ at $I_{ZT}$ (W)	$Z_{ZK}$ at $I_{ZK}=0.25\text{mA}$ (W)	$I_R$ at $V_R$ (mA)	A & B SUFFIX ONLY		NON SUFFIX $I_R$ at $V_R$ used for Suffix A (mA)	
						at $V_R$ (Volts) A	$V_R$ (Volts) B		
CLL5241A	11	20	22	600	2.0	8.0	8.4	30	+0.076
CLL5242A	12	20	30	600	1.0	8.7	9.1	10	+0.077
CLL5243A	13	9.5	13	600	0.5	9.4	9.9	10	+0.079
CLL5244A	14	9.0	15	600	0.1	9.5	10	10	+0.082
CLL5245A	15	8.5	16	600	0.1	10.5	11	10	+0.082
CLL5246A	16	7.8	17	600	0.1	11.4	12	10	+0.083
CLL5247A	17	7.4	19	600	0.1	12.4	13	10	+0.084
CLL5248A	18	7.0	21	600	0.1	13.3	14	10	+0.085
CLL5249A	19	6.6	23	600	0.1	13.3	14	10	+0.086
CLL5250A	20	6.2	25	600	0.1	14.3	15	10	+0.086
CLL5251A	22	5.6	29	600	0.1	16.2	17	10	+0.087
CLL5252A	24	5.2	33	600	0.1	17.1	18	10	+0.088
CLL5253A	25	5.0	35	600	0.1	18.1	19	10	+0.089
CLL5254A	27	4.6	41	600	0.1	20	21	10	+0.090
CLL5255A	28	4.5	44	600	0.1	20	21	10	+0.091
CLL5256A	30	4.2	49	600	0.1	22	23	10	+0.091
CLL5257A	33	3.8	58	700	0.1	24	25	10	+0.092
CLL5258A	36	3.4	70	700	0.1	26	27	10	+0.093
CLL5259A	39	3.2	80	800	0.1	29	30	10	+0.094
CLL5260A	43	3.0	93	900	0.1	31	33	10	+0.095
CLL5261A	47	2.7	105	1000	0.1	34	36	10	+0.095

NOTE1= SUFFIX 'A' +/- 10% TOLERANCE, AND Suffix 'B' +/- 5% TOLERANCE

NOTE2= Pulse Test:  $20\text{ms} < t_p < 50\text{ms}$

NOTE3= Temperature coefficient (\*vz).

Test conditions for temperature coefficient are as follows.

a.  $I_{ZT}=7.5\text{mA}$ ,  $T_J=25^{\circ}\text{C}$

$T_2=125 \text{ deg C}$  (CLL5227A, B thru CLL5242A, B)

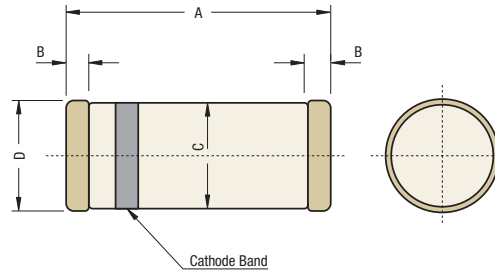
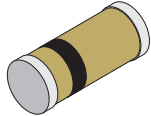
b.  $I_{ZT}=\text{Rated } I_{ZT}$ ,  $T_J=25^{\circ}\text{C}$

$T_2=125 \text{ }^{\circ}\text{C}$  (CLL5243A, B thru CLL5261A, B)

Device to be temperature stabilized with current applied prior to reading breakdown voltage at the specified ambient temperature

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

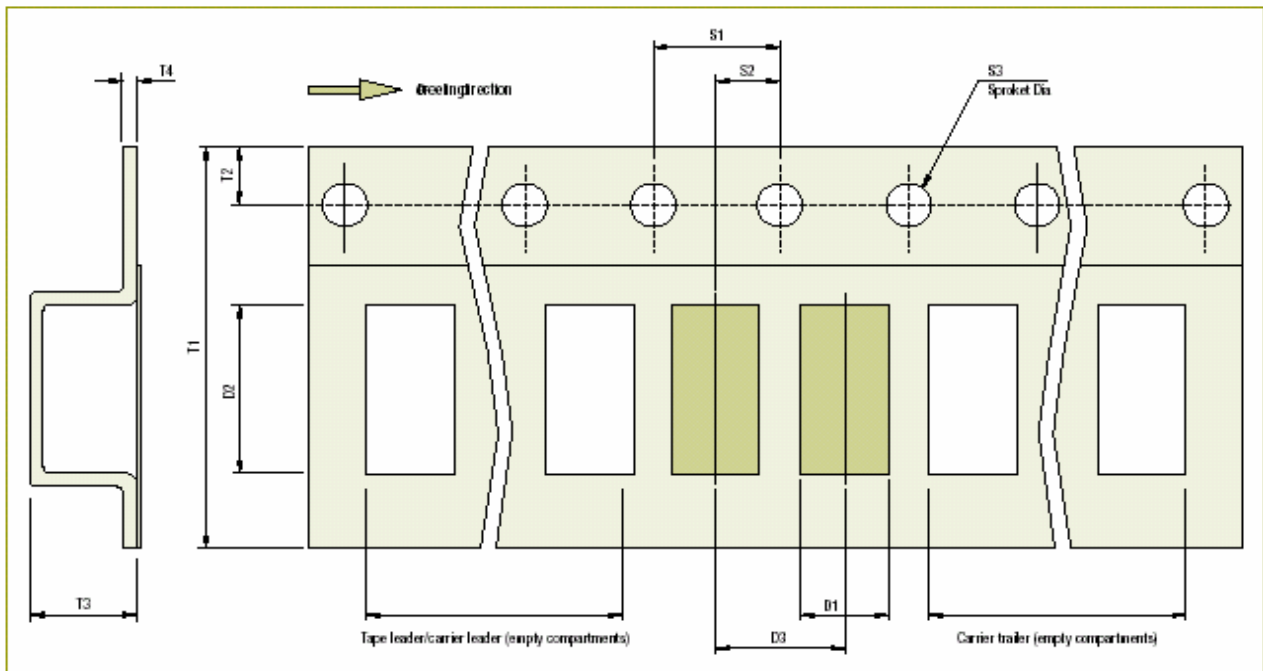
**SOD-80C/LL-34**  
**(Mini MELF)**  
Hermetically Sealed  
SMD Glass Package



DIM	Min	Max
A	3.30	3.70
B	0.20	0.40
C	1.375	1.425
D	1.40	1.54

Cathode is marked by a Band

**Packaging Tape Specifications for SMD Packages**



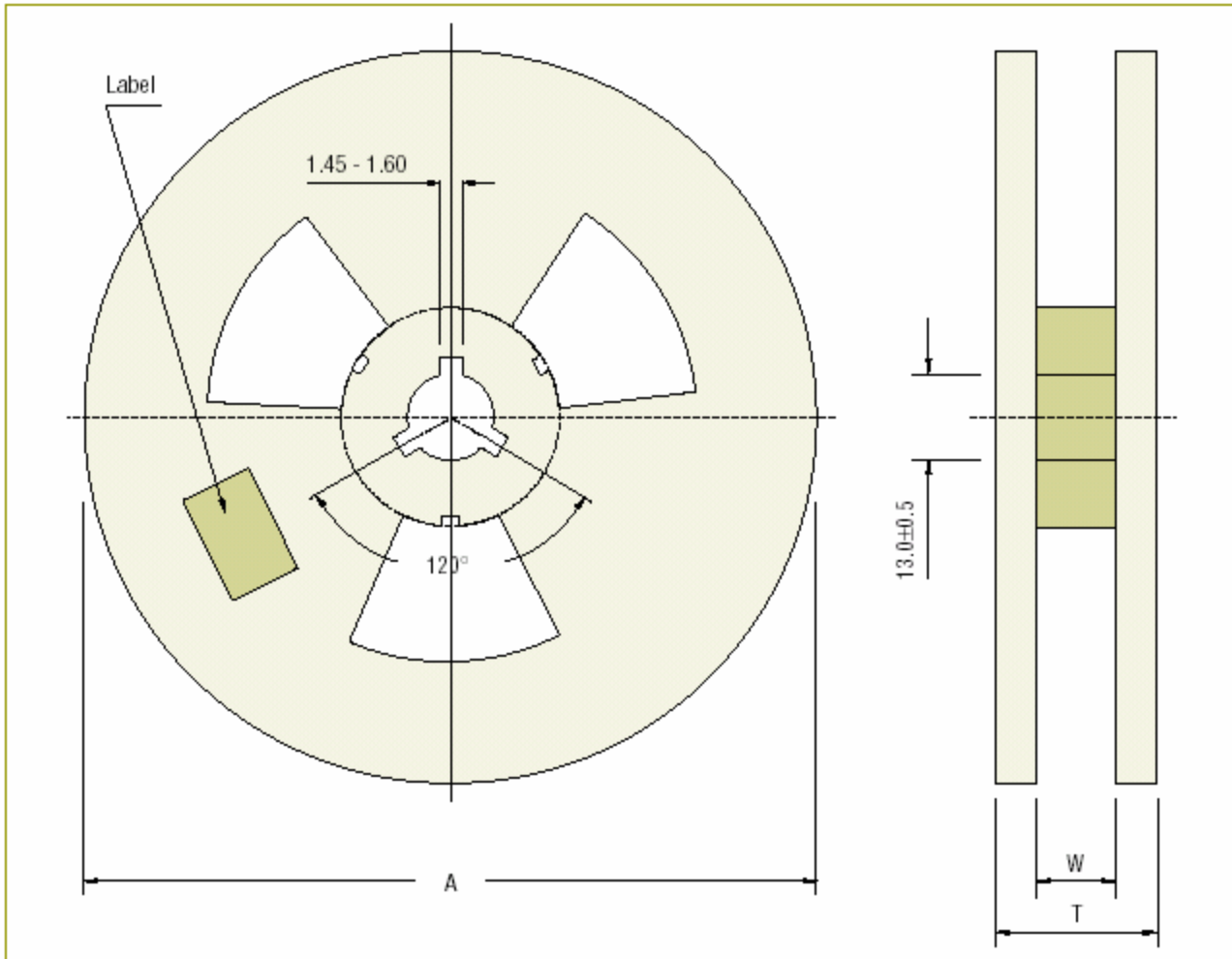
**SMD Tape Specifications (8-12 mm)**

Device	D1	D2	D3	T1	T2	T3	T4	S1	S2	S3
						Max	Max			Dia
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm

SOD - 80C

Mini MELF (LL-34)

## Reel Specifications for SMD Packages



### Reel Specifications

Package	Tape	Reel Dia.	Devices per Reel and MOQ	Inside	Reel
	Width			Thickness	Thickness
		A - Max		W	T - Max
SOD-80C (Mini MELF)	8	180	2,500	8.4±2	14.4
	8	330	10,000	8.4±2	14.4