

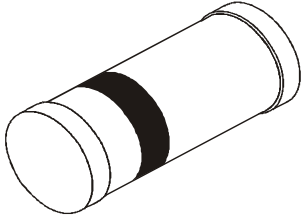
HIGH SPEED SILICON SWITCHING DIODES

LL4148

LL4448

SOD - 80C

Mini MELF (LL- 34)



Polarity: Cathode is indicated by a black band

Hermetically Sealed, Glass Silicon Diodes

ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse Voltage	V_{RRM}	100	V
Reverse Voltage (Continuous)	V_R	75	V
Average Rectified Forward Current	$I_F(av)$	150	mA
Forward Current (DC)	I_F	200	mA
Repetitive Peak Forward Current	I_{FRM}	450	mA
Non Repetitive Peak Surge Current $t=1\text{ ms}$	I_{FSM}	2000	mA
$t=1\text{ s}$	I_{FSM}	500	mA
Power Dissipation up to $T_{amb}=25\text{ }^\circ\text{C}$	P_{tot}	500	mW
Derating factor		2.85	mW/K
Operating and Storage Junction Temperature Range	T_j, T_{stg}	- 65 to +200	$^\circ\text{C}$

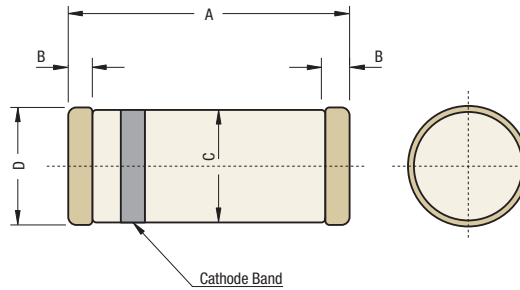
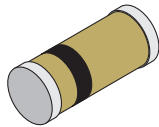
ELECTRICAL CHARACTERISTICS ($T_a=25\text{ }^\circ\text{C}$ Unless Otherwise Specified)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Forward Voltage	V_F	$I_F=10\text{mA}$ LL4148		1.0	V
		$I_F=5\text{mA}$ LL4448	0.62	0.72	V
		$I_F=100\text{mA}$ LL4448		1.0	V
Reverse Current	I_R	$V_R=20\text{V}$		25	nA
		$V_R=75\text{V}$		5.0	μA
		$V_R=20\text{V}, T_j=100^\circ\text{C}$, LL4448		3.0	μA
		$V_R=20\text{V}, T_j=150^\circ\text{C}$		50	μA
Reverse Breakdown Voltage	V_{BR}	$I_R=100\mu\text{A}$	100		V

DYNAMIC CHARACTERISTICS

Diode Capacitance	C_d	$V_R=0\text{V}, f=1\text{MHz}$		4.0	pF
Forward Recovery Voltage	V_{fr}	$I_F=50\text{mA}, t_r=20\text{ns}$		2.5	V
Reverse Recovery Time	t_{rr}	$I_F=10\text{mA}$ to $I_R=60\text{mA}, R_L=100\ \Omega$, Measured at $I_R=1\text{mA}$		4.0	ns

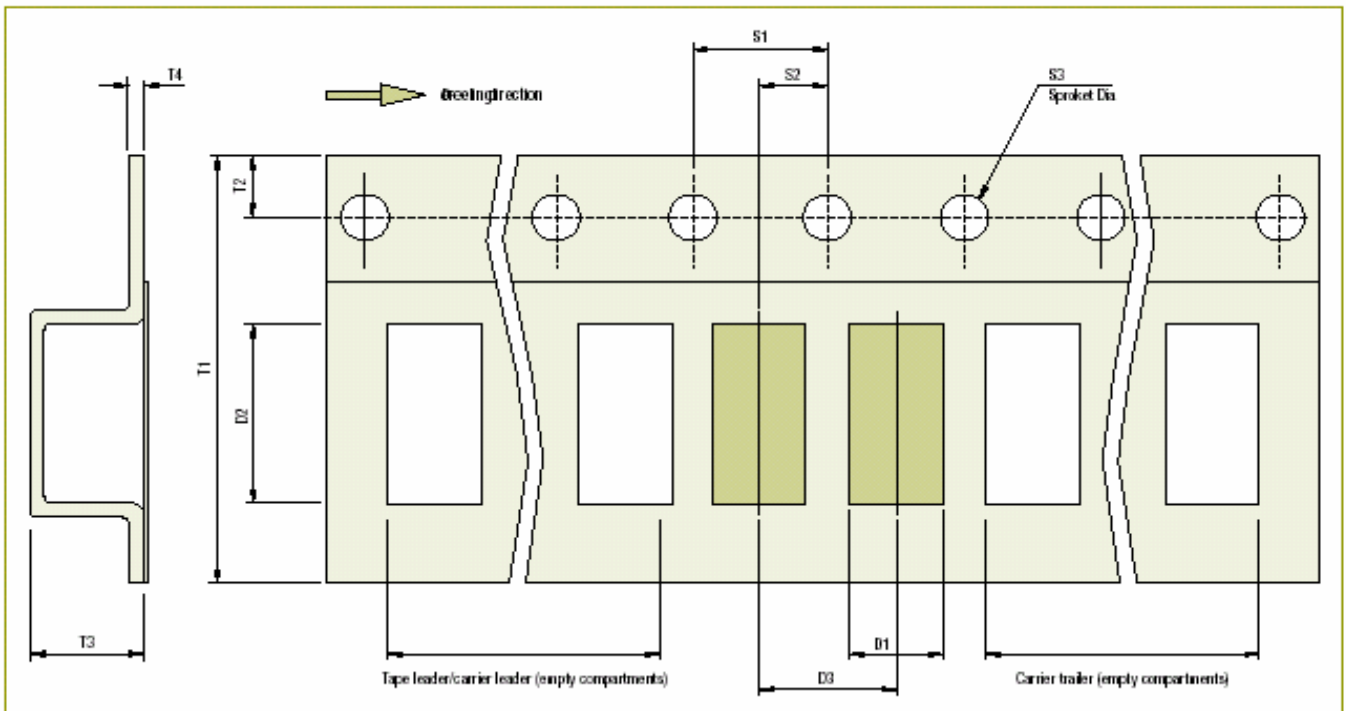
SOD-80C/LL-34
(Mini MELF)
Hermetically Sealed
SMD Glass Package



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

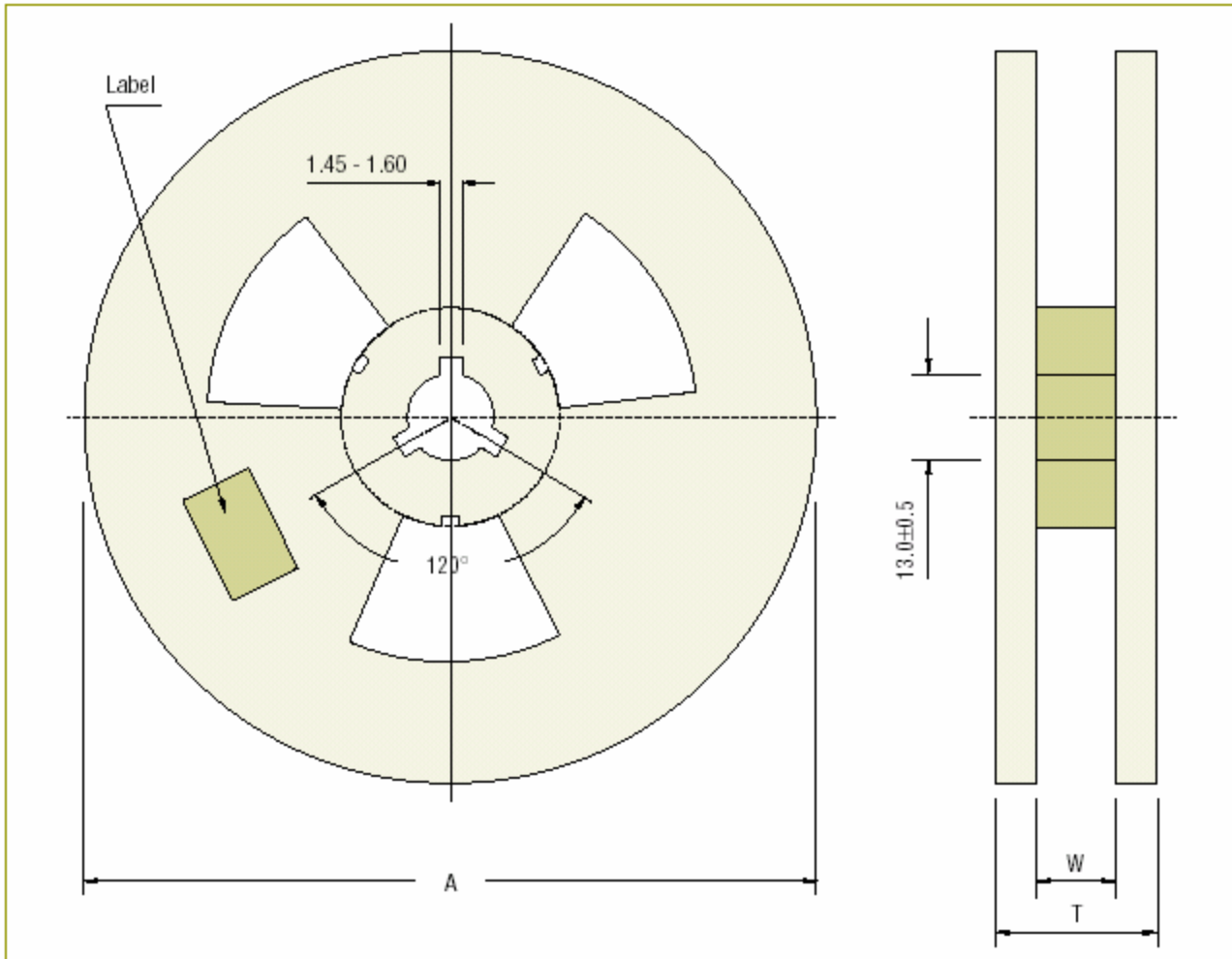
Packaging Tape Specifications for SMD Packages



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

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

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

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 + 91-11-579 6150, 4141 1112 Fax + 91-11-579 5290, 4141 1119

e-mail@cdil.com www.cdilsemi.com