

MCL-SS355

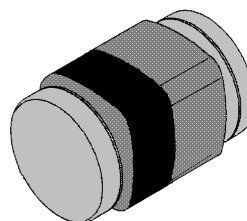
SILICON EPITAXIAL PLANAR DIODE

High-speed Switching Applications

LS-31

Features

- Fits onto SOD 323 / SOT 23 footprints
- Micro Melf package
- High Speed ($t_{rr} = 1.2\text{ns Typ.}$)
- High reliability with high surge current handling capability.

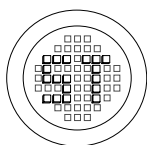


Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

	Symbol	Value	Unit
Peak reverse voltage	V_{RM}	90	V
DC reverse voltage	V_R	80	V
Mean rectifying current	I_o	100	mA
Peak forward current	I_{FM}	225	mA
Surge current (1s)	I_{surge}	500	mA
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature range	T_S	-55 to +125	$^\circ\text{C}$

Characteristics at $T_a = 25^\circ\text{C}$

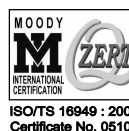
	Symbol	Min.	Typ.	Max.	Unit
Forward Voltage at $I_F = 100\text{mA}$	V_F	-	-	1.2	V
Reverse current at $V_R = 80\text{V}$	I_R	-	-	0.1	μA
Capacitance between terminals at $V_R = 0.5\text{V}$, $f = 1\text{MHz}$	C_T	-	-	3	pF
Reverse recovery time at $I_F = 10\text{mA}$, $V_R = 6\text{V}$, $R_L = 100\Omega$	t_{rr}	-	-	4	ns



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Dated : 20/08/2002

ELECTRICAL CHARACTERISTIC CURVES (Ta=25°C)

Fig. 1- FORWARD CHARACTERISTICS

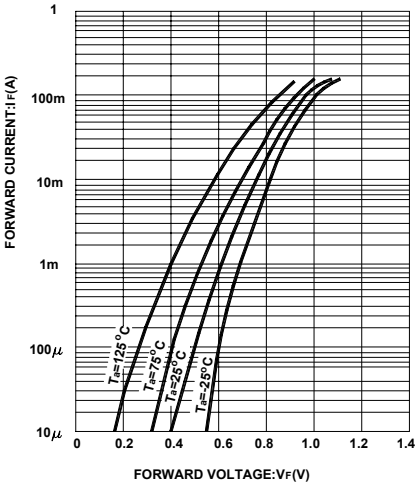


Fig. 2- REVERSE CHARACTERISTICS

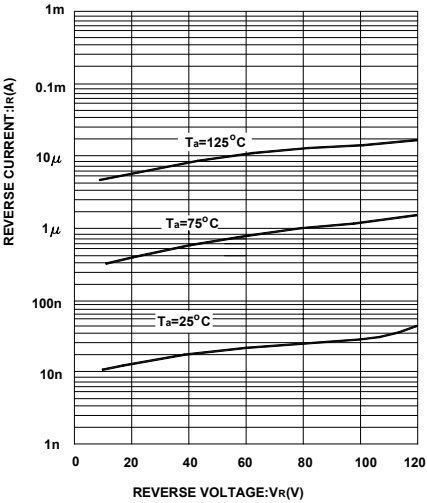


Fig. 3- CAPACITANCE BETWEEN TERMINALS CHARACTERISTICS

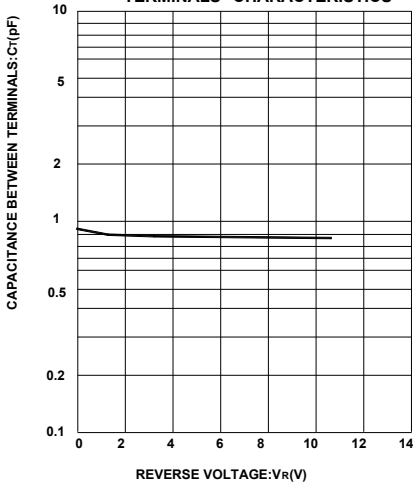


Fig. 4- REVERSE RECOVERY TIME CHARACTERISTICS

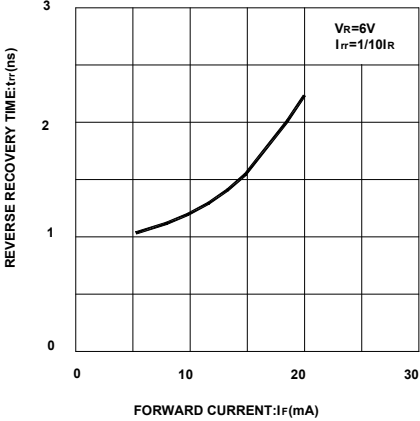


Fig. 5- SURGE CURRENT CHARACTERISTICS

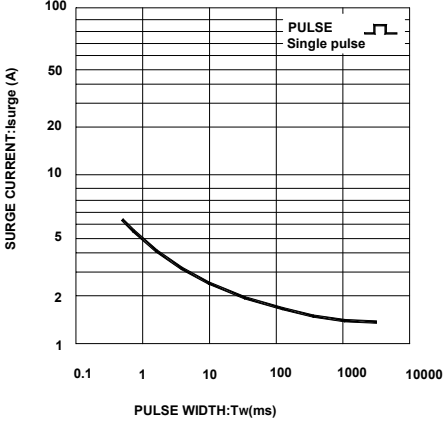
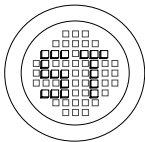
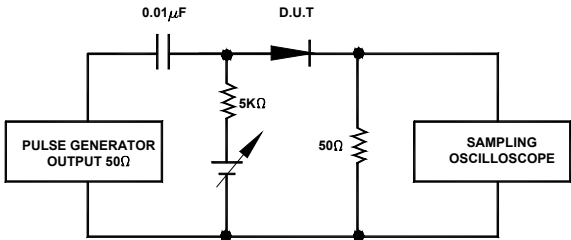
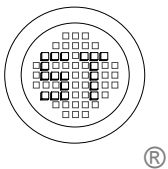
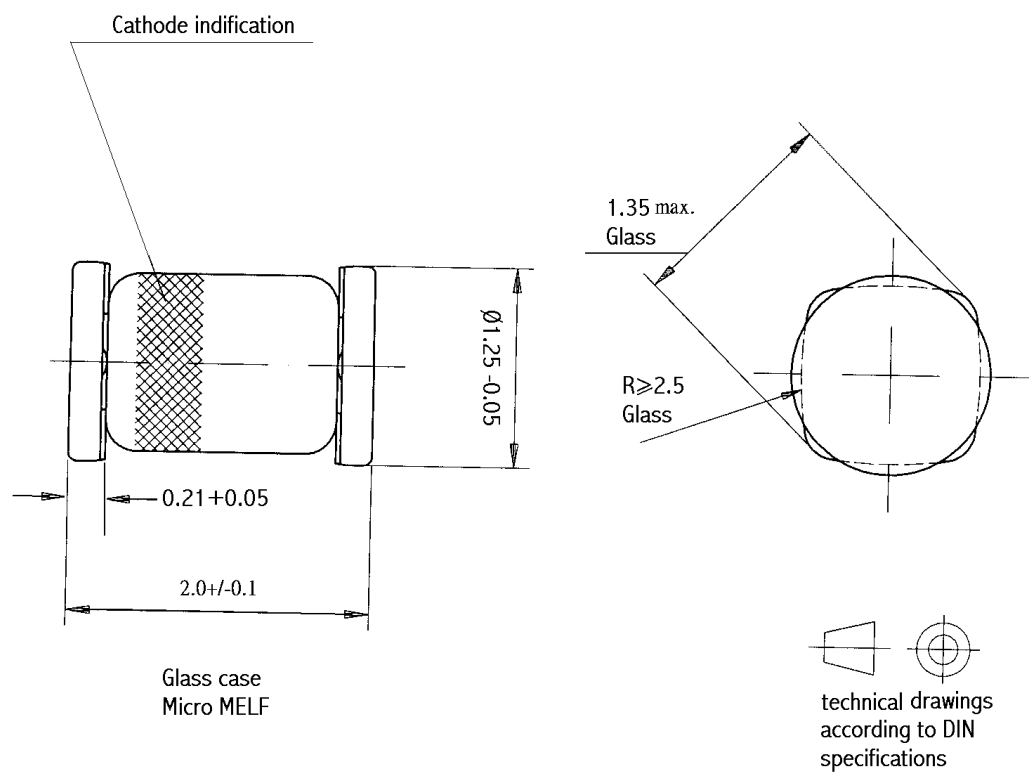


Fig. 6-REVERSE RECOVERY TIME(trr) MEASUREMENT CIRCUIT



Dimensions in mm



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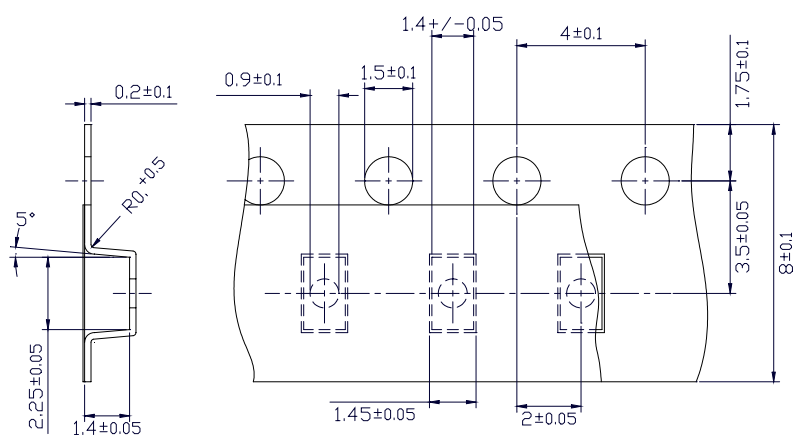
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Technical Information

Taping of SMD-Components

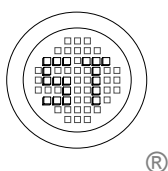
We supplies the SMD components either in bulk or in 8-mm or 12-mm blister tapes depending on type of case.

Both the tape dimensions for the cases MicroMELF and dimensions of the reels are shown in the following figures.



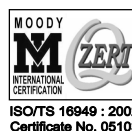
Accumulated pitch tolerance is ± 0.2 mm over 10 pitches

8-mm carrier tape for MicroMELF package
dimensions in mm



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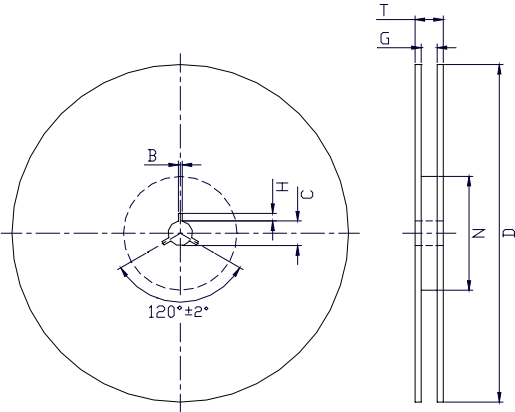
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The beginning of the tape comprises a 200 mm long lead-in with vacant nests and at the hub end of the tape there are 10 to 20 sealed nests containing no devices. This end of the tape automatically detaches from the hub of the reel at the end of the in reeling procedure (Draft DIN IEC 49(CO) 564).

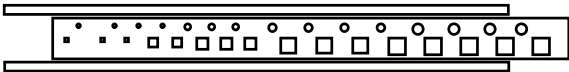
The packaging units for taped devices are

Type of case	Qty / reel	Reel Ø
MicroMELF	2,500	178mm

	8-mm carrier tape	12-mm carrier tape
B	2±0.5	2±0.5
C	13±0.5	13±0.5
D	178±2	330±2
G	8.4±1.5	12.4±2
H	4±0.5	4±0.5
N	60	60
T	<14.9	<20

Dimensions in mm

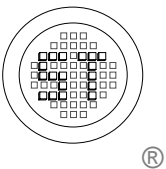
Pull-out direction



Reel for 8-mm and 12-mm carrier tapes

The carrier tape consists of a plastic tape with "nests" having a size corresponding to the components requirements. The sprocket holes are on one side of the tape. The blister tapes are sealed with a cover tape.

The cathode side of the components MicroMELF cases are adjacent to the sprocket holes. Other orientation can be supplied on demand.



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