




SPECIFICATION SHEET NO.	S0510 – LL41480000S100	
ORIGINAL MFG/PART NO.	MDD Diodes/LL4148/LL34LL4148S010	
NEXTGEN PART CODE	LL41480000S100	Indicate This Code For RFQ /Order
DATE	May. 10, 2025	
REVISION	A3	Updated With Most Recent Data
DESCRIPTION AND MAIN PARAMETRICS	<p>Silicon Epitaxial Planar Switching Diode, Glass Case MINI MELF, LL Series</p> <p>Peak Reverse Voltage (VRM): 100V Max.</p> <p>Reverse Voltage (VR): 75V Max.</p> <p>Average Rectified Forward Current IF(AV) 0.2A Max.</p> <p>Junction Temperature Range +175°C</p> <p>Package in Tape/Reel, 2500pcs/Reel</p> <p>RoHS/RoHS III compliant, RoHS Annex III lead Exemption (Exempt per RoHS EU 2015/863)</p>	
CUSTOMER		
CUSTOMER PART NUMBER		
CROSS REF. PART NUMBER		
MEMO		

VENDOR APPROVE			
Issued/Checked/Approved			
Effective Date: May. 10, 2025			

CUSTOMER APPROVE
Date:

MAIN FEATURE

- Fast Switching Speed
- Case LL-34
- Glass Case MINI MELF
- Fast Reverse Recovery Time
- High Conductance
- Meet MSL 1 Requirement
- Cross Competitors Parts and More.
- RoHS/RoHS III compliant, RoHS Annex III lead Exemption (Exempt per RoHS EU 2015/863)



Image shown is a representation only. Exact specifications should be obtained from the product dimension.



APPLICATION

- For General Purpose Switching Applications

ELECTRICAL CHARACTERISTICS

- See Page 5 ~ Page 6.
- All Products Parameters are Subject To NextGen Components' Final Confirmation.

HOW TO ORDER

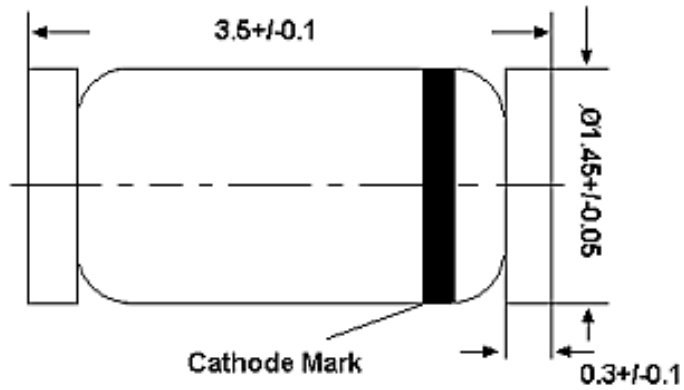
- Please Follow Up Part Code Guide And Indicate NextGen Part Code LL41480000S100 For RFQ and Order.

PART CODE GUIDE

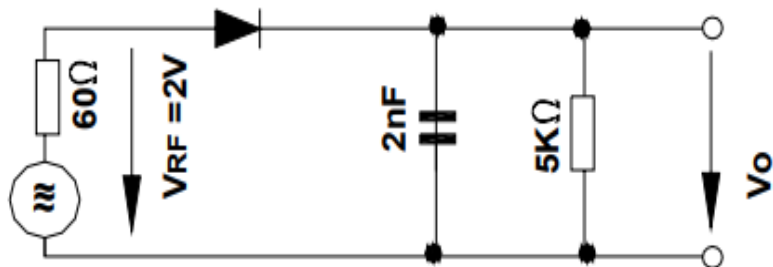
RFQ
[Request For Quotation](#)

CODE	NAME	KEY SPECIFICATION OPTION
LL	Product Series Code	Silicon Epitaxial Planar Switching Diode Glass Case MINI MELF, LL Series
4148	Parameters Code	Letter or Digits (A~Z, a~z or 0~9)
0000S	Internal Control Code	Letter or Digits (A~Z, a~z or 0~9)
100	Peak Reverse Voltage Code	100: 100V
XX	Special/Custom Parameters Code	Letter or Digits (A~Z, a~z or 0~9) for Special Parametric; Blank: N/A

DIMENSION - Unit: mm, Glass Case LL-34/MiniMELF, mm



RECTIFICATION EFFICIENCY MEASUREMENT CIRCUIT



ABSOLUTE MAX. RATING - $T_A=25^{\circ}\text{C}$ unless otherwise specified, For Reference Only

PARAMETER		SYMBOLS	VALUE	UNITS
Peak Reverse Voltage		V_{RM}	100	V
Reverse Voltage		V_R	75	V
Average Rectified Forward Current		$I_F(AV)$	200	mA
Non-repetitive Peak Forward Surge Current	@ $t = 1\text{ s}$	I_{FSM}	0.5	A
	@ $t = 1\text{ ms}$		1	A
	@ $t = 1\text{ }\mu\text{s}$		4	A
Power Dissipation		P_{tot}	500 (Note1)	mW
Junction Temperature		T_J	175	$^{\circ}\text{C}$
Storage Temperature Range		T_{STG}	-65 ~+ 175	$^{\circ}\text{C}$

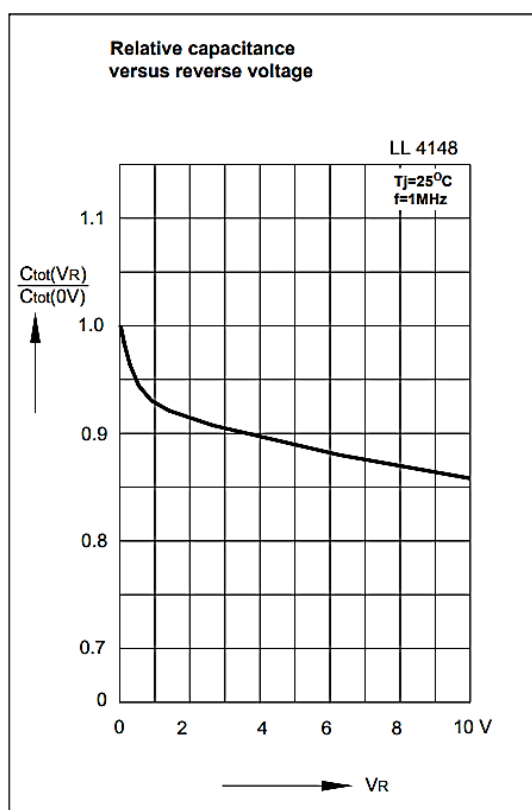
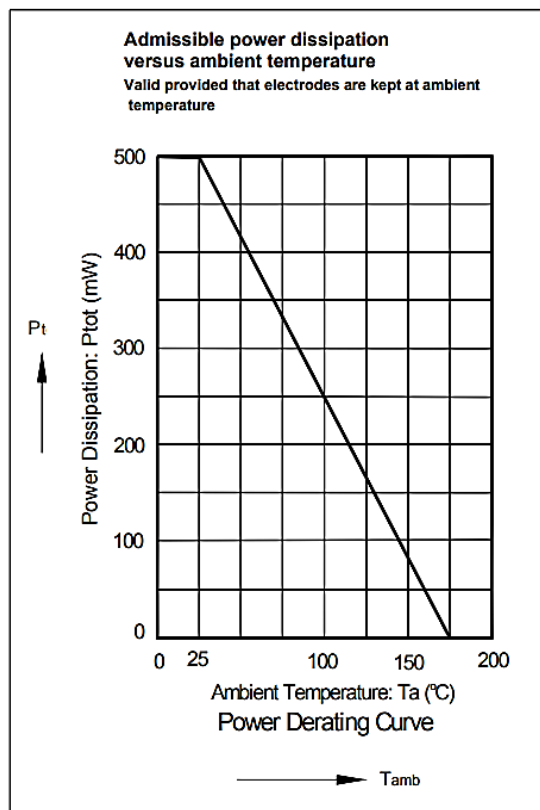
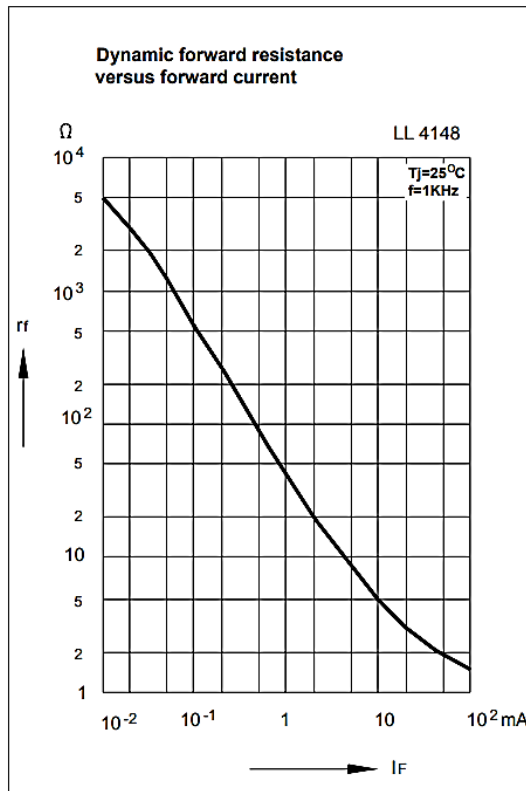
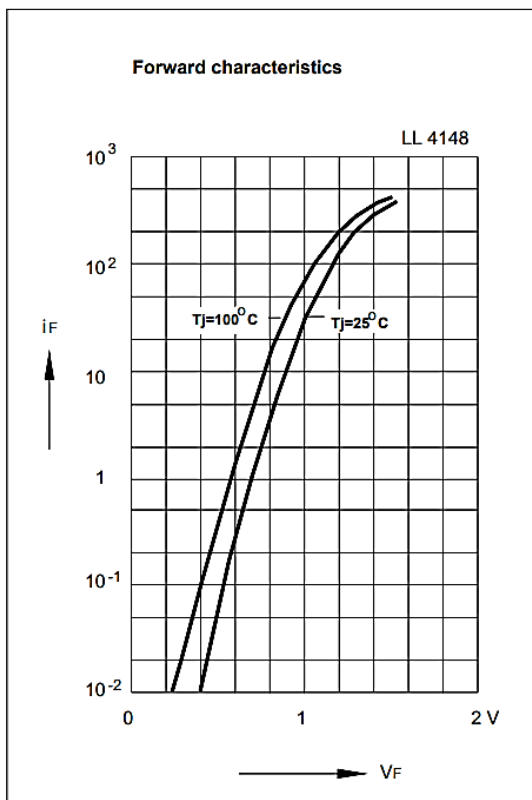
CHARACTERISTICS- $T_A=25^{\circ}\text{C}$ unless otherwise specified, For Reference Only

PARAMETER	SYMBOLS	VALUE			UNIT	TEST CONDITIONS
		Min.	Typ.	Max.		
Forward Voltage	V_F			1	V	@ $I_F=10\text{mA}$
Leakage Current	I_R			25	nA	@ $V_R=20\text{V}$
	I_R			5	μA	@ $V_R=75\text{V}$
	I_R			50	μA	@ $V_R=20\text{V}$, $T_J = 150^{\circ}\text{C}$
Reverse Breakdown Voltage Tested with 100 μA Pulses	$V_{(BR)R}$	100			V	
Capacitance	C_{tot}			4	pF	$V_R = 0\text{V}$, $f=1\text{ MHz}$
Voltage Rise when Switching ON	V_{fr}			2.5	V	50 mA Forward Pulses $t_p = 0.1\text{s}$, Rise Time < 30ns, $f_p = 5$ to 100KHz
Reverse Recovery Time	t_{rr}			4	ns	$I_F = 10\text{ mA}$ to $I_R = 1\text{ mA}$, $V_R = 6\text{V}$, $R_L = 100\ \Omega$
Thermal Resistance Junction to Ambient Air	R_{thA}			0.35 (Note1)	K/mW	
Rectification Efficiency	η_V	0.45		-	-	$f = 100\text{ MHz}$, $V_{RF} = 2\text{ V}$

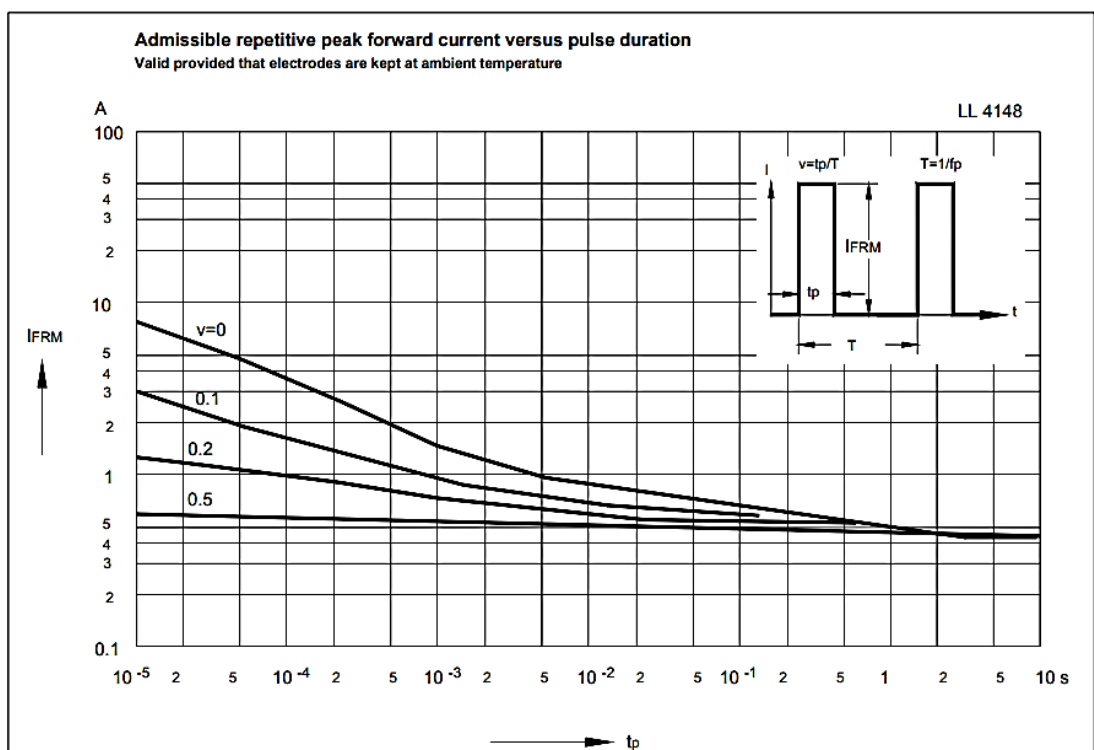
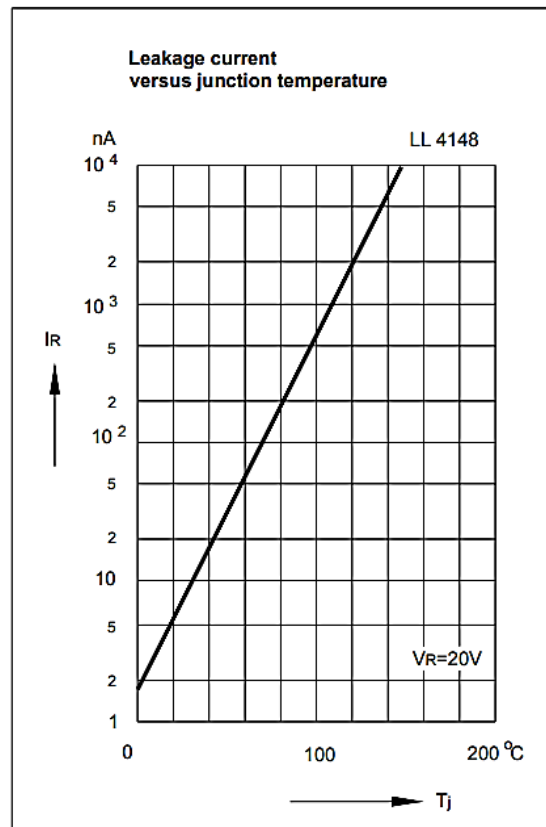
Note

- Valid provided that electrodes are kept at ambient temperature.

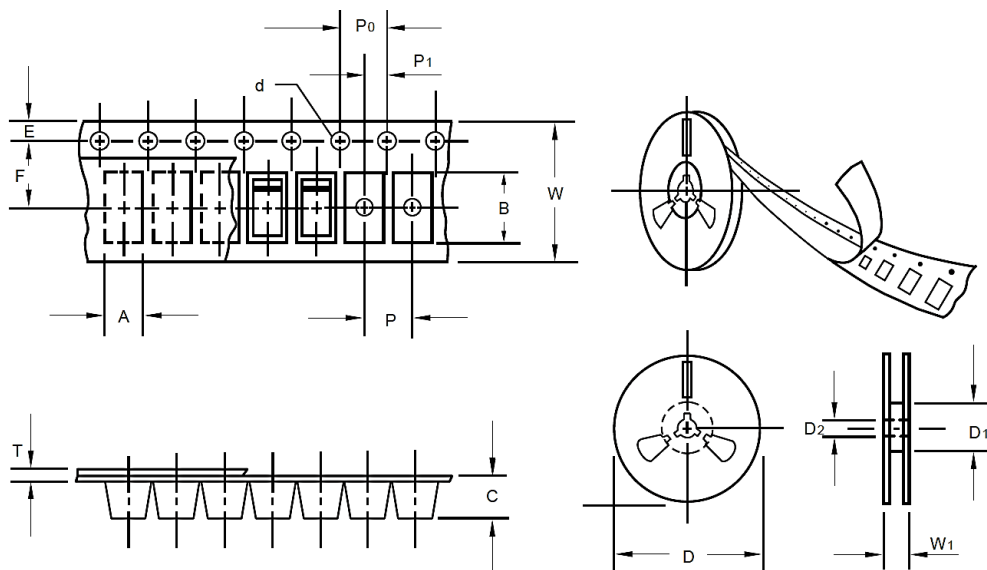
RATINGS AND CHARACTERISTICS CURVES- For Reference Only, $T_a=25^\circ\text{C}$ Unless Otherwise Specified.



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TAPE/REEL - Unit: mm, All Devices are packed in accordance with EIA standard RS-481-A and specifications



ITEM	SYMBOL	TOLERANCE	LL-34/MiniMELF
Carrier width	A	0.1	3.15
Carrier Length	B	0.1	2.77
Carrier Depth	C	0.1	1.22
Sprocket hole	d	0.05	1.55
7"Reel outside diameter	D	2	178
7"Reel inner diameter	D1	Min.	54.4
Feed hole diameter	D2	0.5	13
Sprocket hole position	E	0.1	1.75
Punch hole position	F	0.1	3.5
Punch hole pitch	P	0.1	4
Sprocket hole pitch	P0	0.1	4
Embossment center	P1	0.1	2
Overall tape thickness	T	0.1	0.25
Tape width	W	0.3	8.00
Reel width	W1	1	19.50
Qty. Per Reel (pcs)	2500		

IMPORTANT NOTES AND DISCLAIMER

1. **ROHS COMPLIANCE:** The levels of RoHS restricted materials in this product are below the maximum concentration values (also referred to as the threshold limits) permitted for such substances, or are used in an exempted application, in accordance with EU RoHS Directive (EU) 2015/863 EC (RoHS3). RoHS Test Report for this product can be obtained at Download Center.
2. **REACH COMPLIANCE:** REACH substances of high concern (SVHCs) information is available for this product. Since the European Chemical Agency (ECHA) has published notice of their intent to frequently revise the SVHC listing for the foreseeable future, REACH Test Report for this product can be obtained at Download Center.
3. All Product parametric performance is indicated in the Electrical Characteristics for the listed herein test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.
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