

SPECIFICATION SHEET NO.	S1021- SB10U100SLLS01	
ORIGINAL MFG/PART NO.	 LGE Diodes/SB10U100SL-L	
NEXTGEN PART CODE	SB10U100SLLS01	Indicate This Code For RFQ /Order
DATE	Oct. 21, 2025	
REVISION	A5	Updated With Most Recent Data
DESCRIPTION AND MAIN PARAMETRICS	10A/100V Low VF Schottky Rectifier, 3 Pads, Case TO-277B, SB10U L Series, Peak Repetitive Reverse Voltage (VRRM) 100V Max. Average Forward Current (IF)10A Operating Temp. Range -55°C ~+150°C, Package in Tape/Reel, 5000pcs/Reel RoHS/RoHS III compliant, RoHS Annex III lead Exemption (Exempt per RoHS EU 2015/863) and Halogen Free (HF)	
CUSTOMER		
CUSTOMER PART NUMBER		
CROSS REF. PART NUMBER		
MEMO		

VENDOR APPROVE

Issued/Checked/Approved



Effective Date: Oct. 21, 2025

CUSTOMER APPROVE

Date:

MAIN FEATURE

- High Current Capability, Low Forward Voltage
- Excellent High Temperature Stability
- Low Power Loss, And High Efficiency
- High Forward Surge Capability
- Short Lead Time
- Cross Competitors Parts and More.
- RoHS/RoHS III compliant, RoHS Annex III lead Exemption (Exempt per RoHS EU 2015/863) and Halogen Free (HF)



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

APPLICATION

- Switching Mode Power Supply Applications
- Portable Equipment Battery Applications
- High Frequency Rectification
- DC/DC Converter
- Designed As Bypass Diodes For Solar Panels



ELECTRICAL CHARACTERISTICS

- See Page 6 ~Page 7
- All Parameters are Subject To NextGen Components' Final Confirmation

HOW TO ORDER

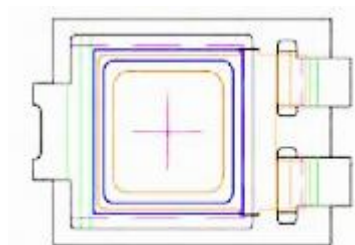
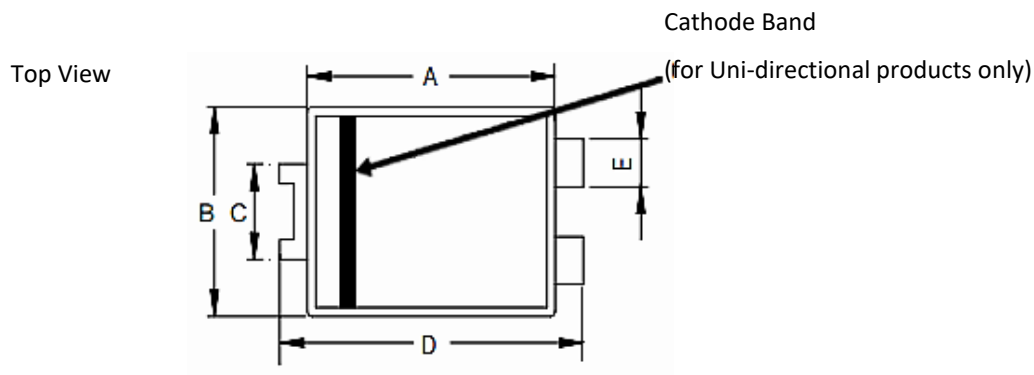
- Please Follow Up Part Code Guide And Indicate NextGen Part Code SB10U100SLLS01 For RFQ and Order.

PART CODE GUIDE

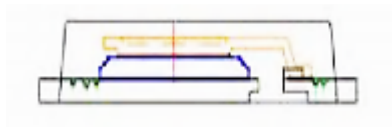
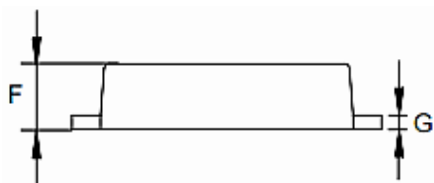
RFQ
[Request For Quotation](#)

CODE	NAME	KEY SPECIFICATION OPTION
SB10U	Product Series Code	Low VF Schottky Rectifier Case TO-277B, 3 Pads , SB10U L Series, Average Forward Current (IF) 10A
100SL	Parameters Code	Letter or Digits (A~Z, a~z or 0~9)
LS01	Internal Control Code	Letter or Digits (A~Z, a~z or 0~9)
XX	Special/Custom Parameters Code	Letter or Digits (A~Z, a~z or 0~9) for Special Parametric; Blank: N/A

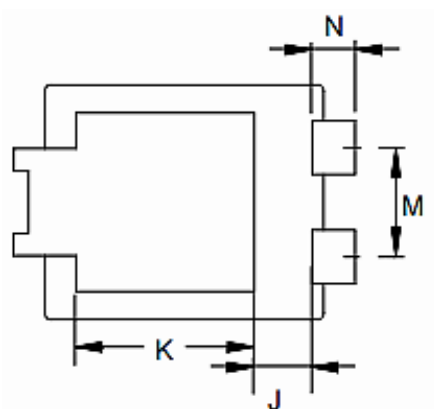
DIMENSION- Unit: mm, Case TO-277B Outline



Side View

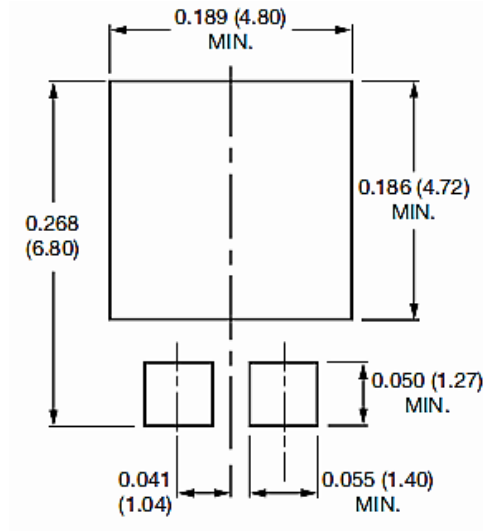


Bottom View



Case TO-277B				
Symbol	Inch		mm	
	Min.	Max.	Min.	Max.
A	0.22	0.228	5.6	5.8
B	0.161	0.169	4.1	4.3
C	0.067	0.075	1.7	1.9
D	0.252	0.260	6.4	6.6
E	0.031	0.039	0.8	1.0
F	0.041	0.047	1.05	1.2
G	0.01	0.016	0.25	0.4
J	0.043	0.055	1.1	1.4
K	0.128	0.152	3.25	3.85
M	0.067	0.079	1.7	2.0
N	0.033	0.043	0.85	1.1

RECOMMEND PAD LAYOUT - Unit: Inch/mm, Case TO-277B Outline



PIN CONFIGURATION



MECHANICAL DATA

CASE	MOLDING COMPOUND	TERMINALS	MARKING
TO-277B	UL Flammability Classification Rating 94V-0	Matte Tin-plated Leads; Solderability- per MIL-STD-202, Method 208	10U100

ABSOLUTE MAX. RATING - TA=25°C unless otherwise specified, For Reference Only

PARAMETER	SYMBOLS	VALUE	UNITS
Peak Repetitive Reverse Voltage	VRRM	100	V
Working Peak Reverse Voltage	VRWM		
DC Blocking Voltage	VDC		
RMS Rectified Voltage	VR(RMS)	70	V
Average Forward Current	IF(AV)	10	A
Peak Forward Surge Current, 8.3ms single half sine-wave	IFSM	200	A
Typical Thermal Resistance Junction to Ambient	RθJA	80	°C/W
	RθJL	15	°C/W
Operating Junction Temperature	TJ	-55 ~ +150	°C
Storage Temperature Range	TSTG	-55 ~ +150	°C

ELECTRICAL CHARACTERISTICS- TA=25°C unless otherwise specified, For Reference Only

PARAMETER	SYMBOLS	VALUE			UNIT	CONDITION
		MIN.	TYP.	MAX.		
Forward Voltage	Vf		0.57	0.63	V	IF = 10A @ 25°C
Reverse Leakage Current	IR		0.2		mA	TA= 25°C
			10		mA	TA= 100°C

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

Fig.1 - Forward Current Derating Curve

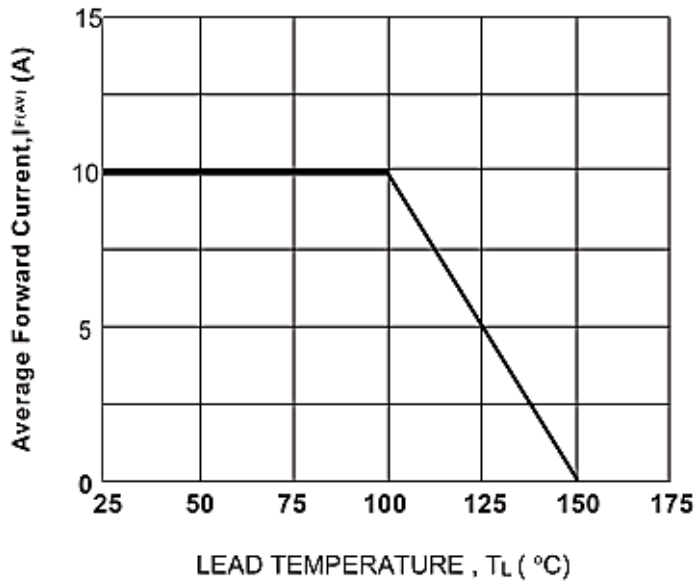
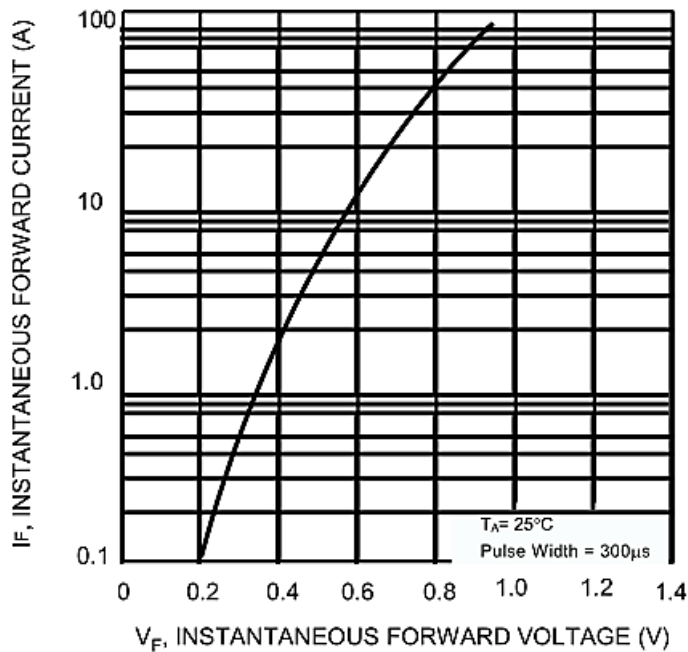


Fig. 2 Typical Forward Characteristics (per leg)



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

Fig. 3 Maximum Peak Forward Surge Current (per leg)

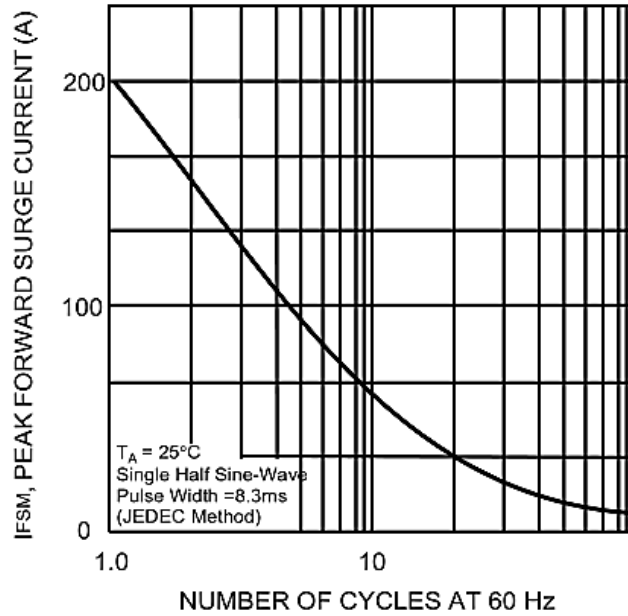
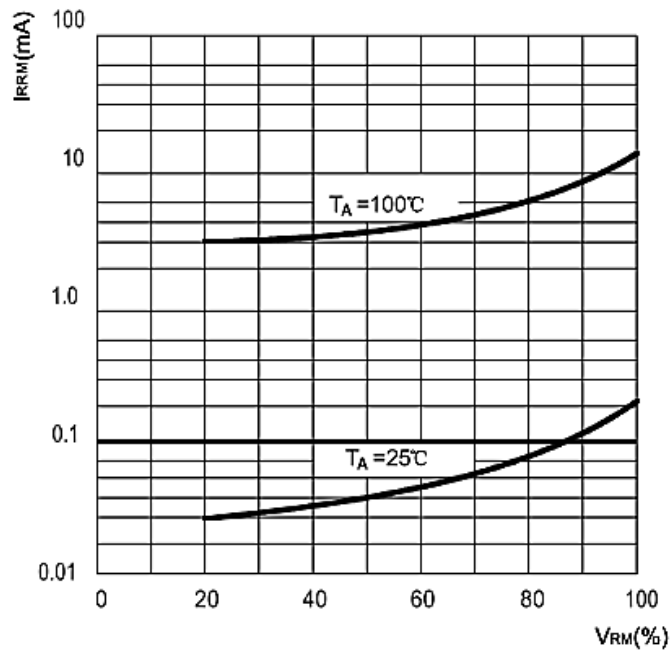
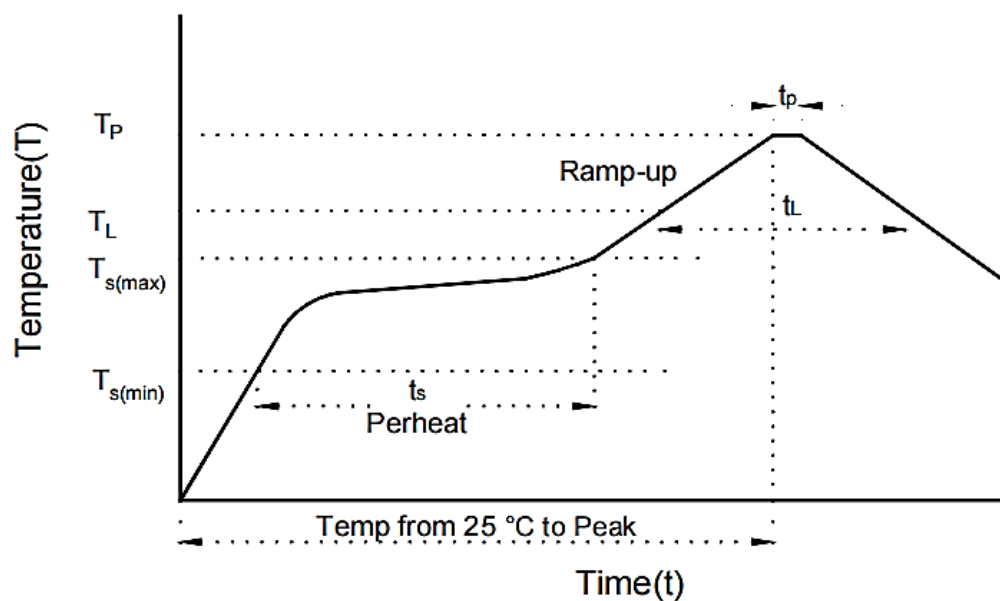


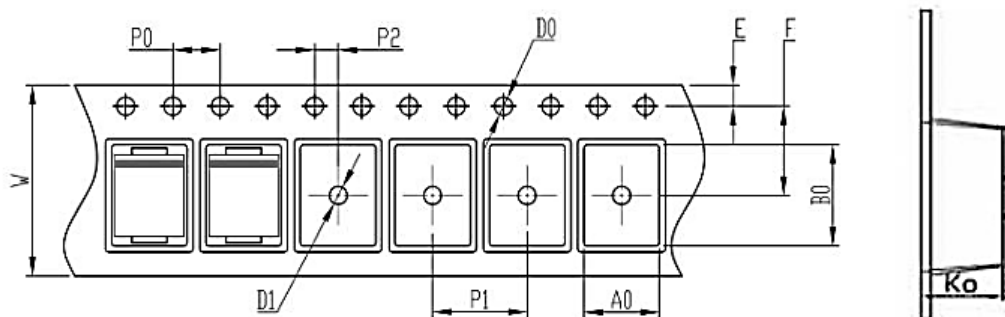
Fig4: Typical Reverse Characteristics



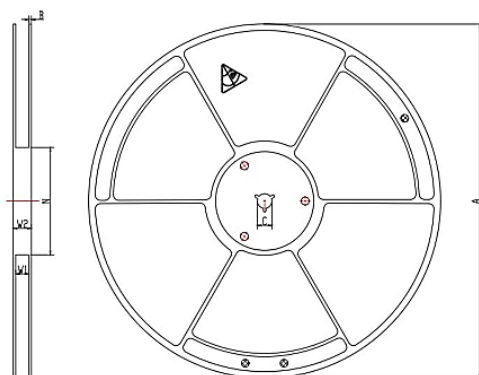
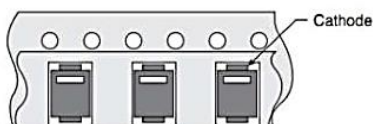
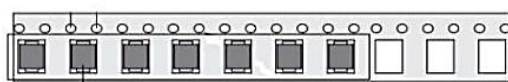
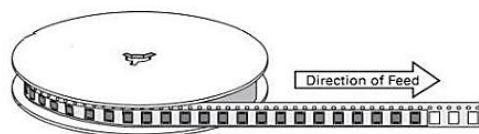
RECOMMENDED SOLDERING PARAMETERS – FOR REFERENCE ONLY


PROFILE FEATURE		PB-FREE ASSEMBLY
Average Ramp-up Rate (T_L Max to T_p)		3°C/second Max
Preheat	Temperature Min (T_s Min.)	150°C
	Temperature Max (T_s Max.)	200°C
	Time (t_s Min. to t_s Max.)	60 ~ 180 seconds
Time maintained above	Temperature (T_L)	217°C
	Time (t_L)	60 ~ 150 seconds
Peak/Classification Temperature (T_p)		260 °C
Time within 5°C of actual Peak Temperature (t_p)		20 ~ 40 seconds
Ramp-down Rate		6 °C /Second Max.
Time 25 °C to Peak Temperature		8 Minutes Max.
Suggest reflow times		3 Times Max.

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



Case	W	E	F	D0	D1	P0	P1	P2	A0	B0	K0
TO-277B	12.0 ±0.15	1.75 ±0.15	5.5 ±0.15	1.50 ±0.15	1.50 ±0.15	4.0 ±0.15	8.0 ±0.15	2.0 ±0.15	4.5 ±0.15	6.8 ±0.15	1.35 ±0.15



Reel Size	A	N	W1	W2	B	C	Qty. (pcs)
13"	330±2	100±0.5	12.4+0.6/-0	17±0.5	2±0.5	13±0.5	5000

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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