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| SPECIFICATION SHEET NO. | T0304- S3GBL00000S001 | |
| ORIGINAL MFR. PART NO. |  LGE Diodes/S3GB-L | |
| NEXTGEN ORDER PART NO. | S3GBL00000S001 | This number is required on all RFQs and Purchase Orders |
| RELEASE DATE | March, 04, 2026 | |
| REVISION | Rev. A1 | Updated to reflect the most recent data |
| DESCRIPTION AND KEY SPECIFICATIONS FOR SINGLE PART NUMBER | <p>3A Surface Mount General Purpose Rectifier 2 Pads, S3L Series Package DO-214AA/SMB</p> <p>Average Forward Rectified Current (I(AV)): 3.0A @ TL = 75° C</p> <p>Recurrent Peak Reverse Voltage (VRRM): 400 V</p> <p>RMS Voltage (VRMS): 280V</p> <p>Operating Junction Temperature: -55° C to +150° C</p> <p>Packaging: Tape & Reel, 3000 pcs/reel</p> <p>RoHS / RoHS III Compliant</p> <p>RoHS Annex III Lead Exemption (EU 2015/863)</p> <p>REACH Compliant and Halogen Free (HF)</p> | |
| CUSTOMER | | |
| CUSTOMER PART NO. | | |
| NOTE | | |

VENDOR APPROVAL

Prepared by | Checked by | Approved by



Date: March, 04, 2026

CUSTOMER APPROVAL

Signature:

Name:

Title:

Date:

GENERAL DESCRIPTION

The S3L Series is a surface-mount general purpose rectifier designed for high reliability and efficient power rectification in a wide range of electronic applications.

The device utilizes a glass-passivated junction, providing improved reliability, high surge current capability, and low forward voltage drop.



MAIN FEATURES

- Surface Mount Package (SMB / DO-214AA)
- Glass Passivated Junction
- Low Forward Voltage Drop
- High Current Capability and High Surge Current Capability
- Suitable for Automated Pick-and-Place Assembly
- UL94V-0 Flame Retardant Plastic Package
- Compatible with Major Industry Standard Parts
- RoHS/RoHS III compliant, RoHS Annex III lead Exemption (Exempt per RoHS EU 2015/863)
- REACH Compliant and Halogen Free (HF)

The image shown is for reference only. Please refer to the dimensional drawing for exact mechanical specifications.

APPLICATIONS

- General rectification for power supplies
- Polarity protection and Freewheeling and clamping circuits
- Consumer electronics and industrial equipment

ELECTRICAL CHARACTERISTICS

- Refer to Page 3-4 for detailed electrical characteristics.

IMPORTANT NOTICE

- Specifications are subject to change without prior notice.
- NextGen Components reserves the right to modify product specifications to improve reliability, performance, or manufacturability.
- Customers should verify that they have the latest revision of this datasheet before finalizing product designs.



MECHANICAL DATA

| Parameter | Description |
|-------------------|--------------------------------|
| Package / Case | Molded Plastic, DO-214AA (SMB) |
| Terminals | Pure Tin Plated, Lead-Free |
| Polarity | Cathode indicated by band |
| Mounting Position | Any |
| Weight | Approx. 0.093 g |

MAX. RATINGS & ELECTRICAL CHARACTERISTICS

- Ratings at 25 °C ambient temperature unless otherwise specified.
- Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

| Parameter | Symbols | Value | Units |
|--|---------|-------------|-------|
| Average Forward Rectified Current @ TL = 75°C | IF(AV) | 3.0 | A |
| Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed On Rated Load (JEDEC Method) | IFSM | 80 | A |
| Operating Temperature Range | TJ | -50 to +150 | °C |
| Storage Temperature Range | TSTG | -55 to +150 | °C |

ELECTRICAL CHARACTERISTICS

| Parameter | Symbols | Conditions | Value | Units |
|------------------------------------|---------|------------|-------|-------|
| Instantaneous Forward Voltage | VF | IF = 3A | 1.15 | V |
| DC Reverse Current | IR | VR = Rated | 10 | µA |
| Reverse Recovery Time (see Note 1) | trr | Typical | 1.5 | µs |
| Junction Capacitance (see Note 2) | CJ | Typical | 40 | pF |

ORDERING INFORMATION AND ELECTRICAL RATINGS

- Ratings At 25 °C Ambient Temperature Unless Otherwise Specified.
- Single Phase Half-wave 60Hz, resistive Or Inductive Load, For Capacitive Load Current Derate By 20%.

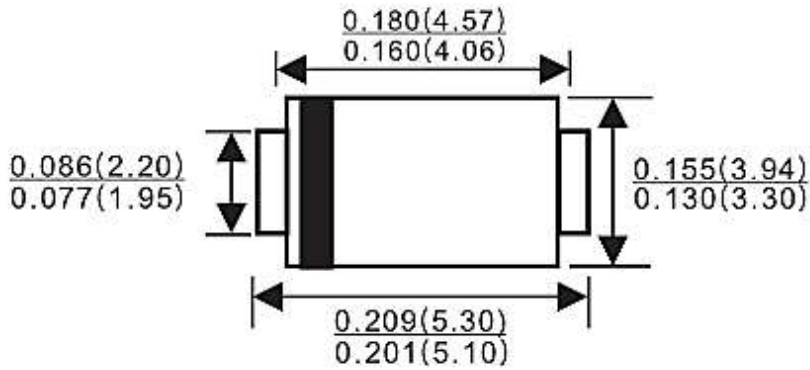
| NextGen Order Part Number | Max. Repetitive Peak Reverse Voltage | Max. RMS Voltage | Max. DC Blocking Voltage | Max. Peak Reverse Current At Rated DC Blocking Voltage | | Typical Thermal Resistance. (Note 3) | Marking List | | | |
|--------------------------------|--------------------------------------|------------------|--------------------------|--|------------------|--------------------------------------|--------------|-----------------|----------------|------------------|
| | | | | @ 25 °C | @ 125 °C | | | | | |
| | | | | V _{RRM} | V _{RMS} | | | V _{DC} | I _R | R _{θJL} |
| | | | | V | V | | | V | µA | °C/W |
| S3ABL00000S001 | 50 | 35 | 50 | 10 | 250 | 10 | S3A | | | |
| S3BBL00000S001 | 100 | 70 | 100 | 10 | 250 | 10 | S3B | | | |
| S3DBL00000S001 | 200 | 140 | 200 | 10 | 250 | 10 | S3D | | | |
| S3GBL00000S001 | 400 | 280 | 400 | 10 | 250 | 10 | S3G | | | |
| S3JBL00000S001 | 600 | 420 | 600 | 10 | 250 | 10 | S3J | | | |
| S3KBL00000S001 | 800 | 560 | 800 | 10 | 250 | 10 | S3K | | | |
| S3MBL00000S001 | 1000 | 700 | 1000 | 10 | 250 | 10 | S3M | | | |

Note:

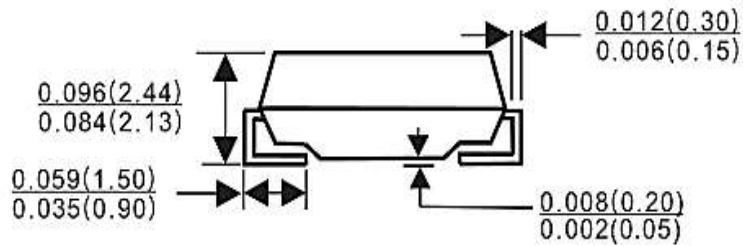
1. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A
2. Measured at 1 MHz and Applied V_R=4.0 Volts
3. Measured on P.C. Board with 0.4" x 0.4" (10mm x 10mm) Copper Pad Areas.

PACKAGE DIMENSIONS - Unit: Inch (mm), Case DO-214AA/SMB Outline

Top View



Side View



RATINGS & CHARACTERISTIC CURVES - For Reference Only

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

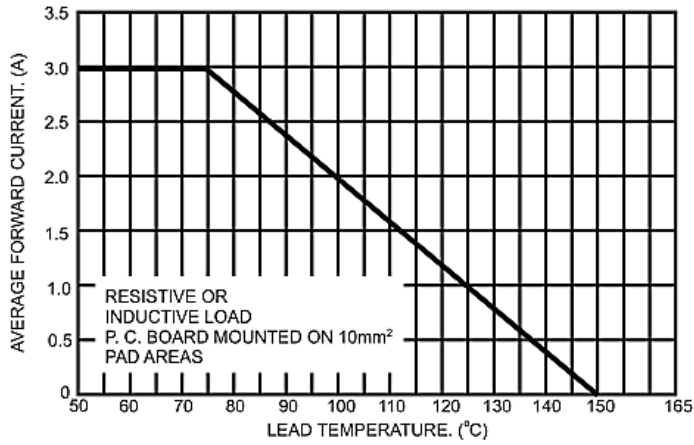
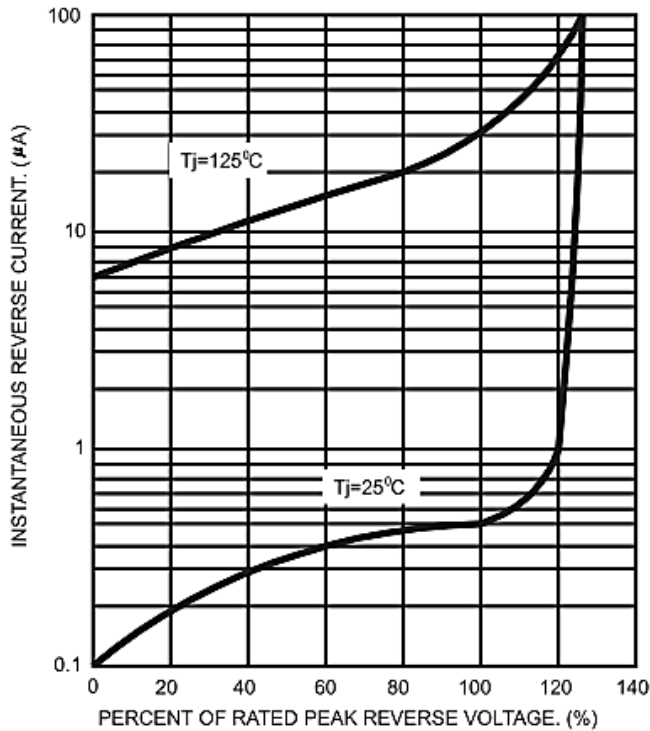


FIG.2- TYPICAL REVERSE CHARACTERISTICS



RATINGS & CHARACTERISTIC CURVES - For Reference Only

FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

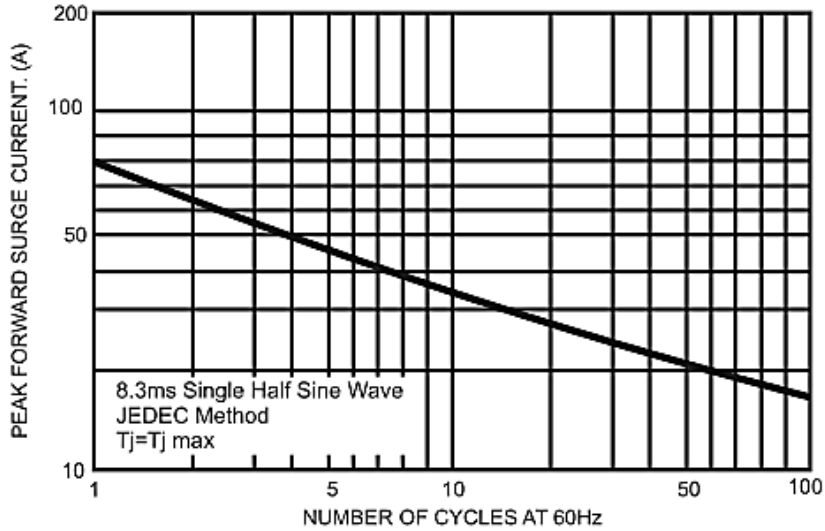
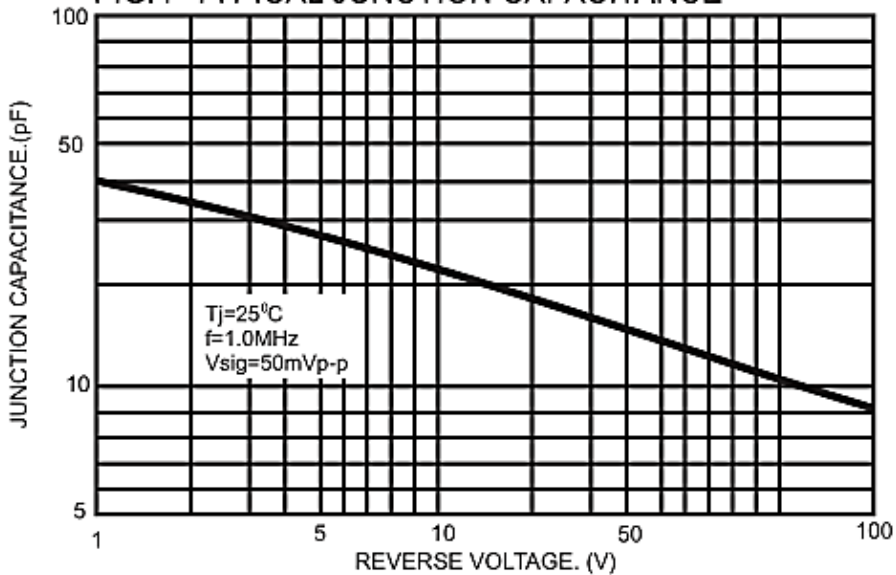


FIG.4- TYPICAL JUNCTION CAPACITANCE



RATINGS & CHARACTERISTIC CURVES - For Reference Only

FIG.5- TYPICAL FORWARD CHARACTERISTICS

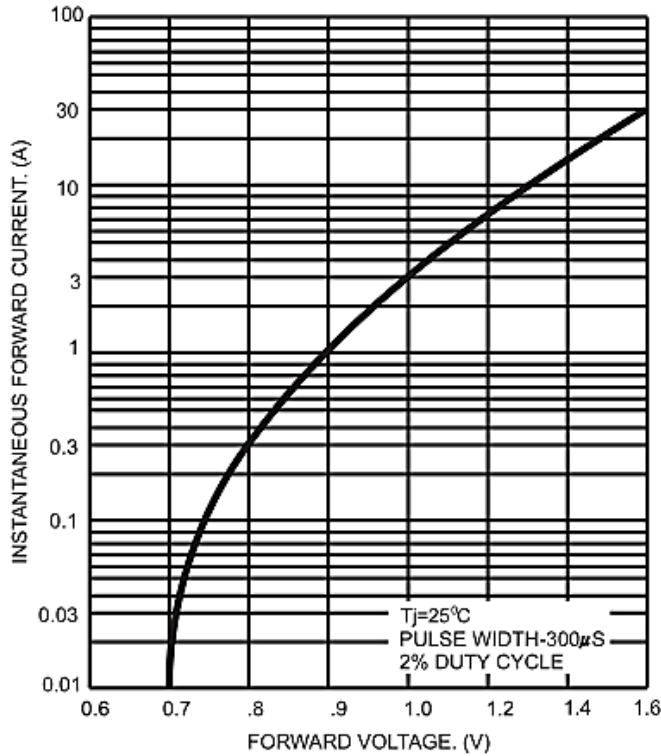
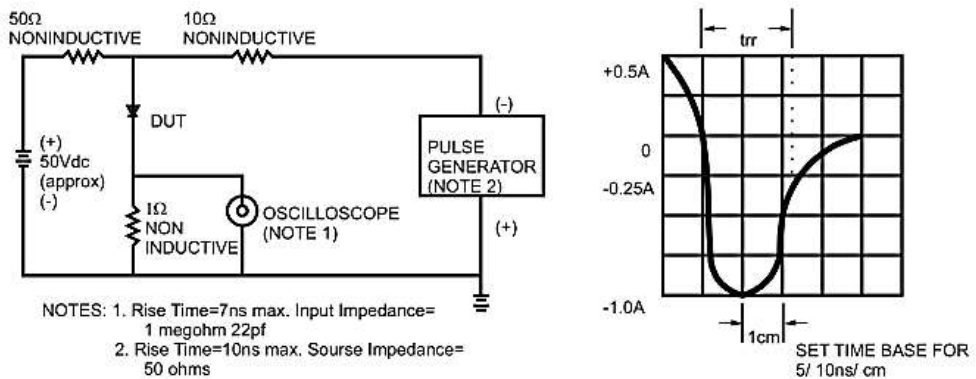
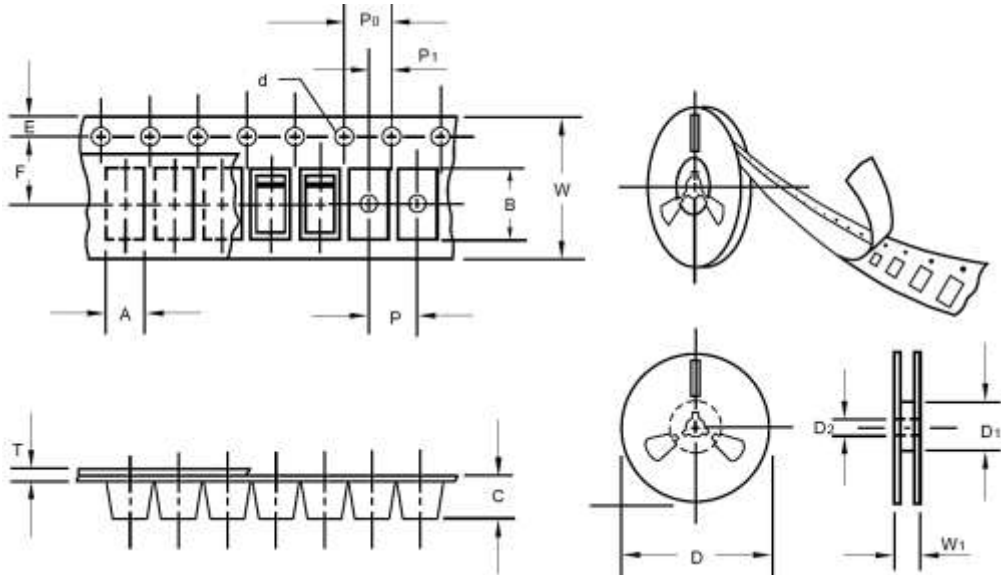


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



TAPE AND REEL (Unit: mm)

- All Devices are packed in accordance with EIA standard RS-481-A and specifications.



| Item | Symbol | Tolerance | SMB/DO-214AA |
|---------------------------|---------------|-----------|--------------|
| Carrier width | A | 0.1 | 3.81 |
| Carrier Length | B | 0.1 | 5.41 |
| Carrier Depth | C | 0.1 | 2.42 |
| Sprocket hole | d | 0.05 | 1.50 |
| 13" Reel outside diameter | D | 2.0 | 330.00 |
| 13" Reel inner diameter | D1 | Min. | 50.00 |
| Feed hole diameter | D2 | 0.5 | 13.00 |
| Sprocket hole position | E | 0.1 | 1.75 |
| Punch hole position | F | 0.1 | 5.55 |
| Punch hole pitch | P | 0.1 | 8.00 |
| Sprocket hole pitch | P0 | 0.1 | 4.00 |
| Embossment center | P1 | 0.1 | 2.00 |
| Overall tape thickness | T | 0.1 | 0.30 |
| Tape width | W | 0.3 | 12.00 |
| Reel width | W1 | 1.0 | 12.30 |
| Standard Packing Quantity | 3000 pcs/Reel | | |

PART NUMBERING SYSTEM

- Please refer to the part numbering structure and specify the NextGen order part number S3GBL00000S001 on all RFQs and Purchase Orders.

RFQ
[Request For Quotation](#)

PART NUMBERING STRUCTURE

| Code | Description | Key Specification |
|------------|--------------------------------|--|
| S3 | Product Series (3A Rectifier) | SMD General Purpose Rectifier, Forward Current 3.0A |
| G | Voltage Rating Code | A: 50V Max. ; B: 100V Max.; D: 200V Max.; G: 400V Max.; J: 600V Max.; K: 800V Max.; M: 1000V Max. |
| B | Package/Case Code | B: Case DO-214AA/SMB |
| L00000S001 | Internal Control Code | Letter A~Z, a~z or digits (0~9) |
| XX | Special/Custom Parameters Code | Blank: N/A XX: Letter A – Z, a – z or digits (0 – 9) for Special/Custom Parameters |

IMPORTANT NOTES AND DISCLAIMER

RoHS Compliance

This product complies with EU RoHS Directive 2011/65/EU and its amendment (EU) 2015/863 (RoHS 3). Restricted substances are below applicable threshold limits or permitted under exemptions. RoHS documentation is available upon request.

REACH Compliance

Information regarding Substances of Very High Concern (SVHCs) under REACH is available. As the European Chemicals Agency (ECHA) periodically updates the SVHC list, customers should obtain the latest information prior to use.

Product Performance

All parametric performance data is specified under the electrical characteristics and corresponding test conditions provided herein, unless otherwise noted. Performance may vary if operated outside specified conditions.

Specifications and Changes

NextGen Components, Inc. ("NextGen") reserves the right to modify this document and the products described herein at any time without prior notice. Customers are responsible for verifying the most current product information prior to final design, purchase, or use.

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Restricted Applications

NextGen products are not authorized for use as critical components in life-support devices, medical systems, or other safety-critical applications without prior written approval.

Returns Policy

Customers must obtain a Returned Merchandise Authorization (RMA) number before returning products. Returns must be requested within 30 days of invoice date and products must be unused and in original packaging. Products designated as Non-Cancelable / Non-Returnable (NCNR) are not eligible for return.