

SPD10037LLD

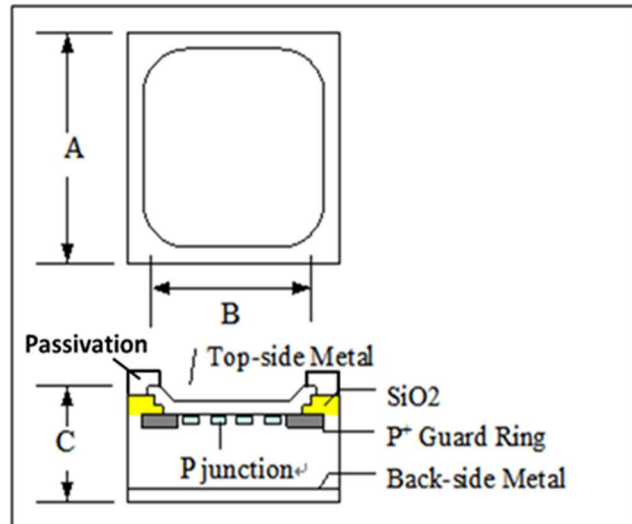
High Efficiency Low Loss Diode

General Description:

- Low Forward Voltage
- Temperature Range up to 200°C
- Minimum leakage current at high temperature
- Automotive Grade (PPAP standard)

Application:

- Alternator Rectification



Chip Outlines: 208 mil, 24V

Wafer Information:

Wafer size: 6" (150mm)

Gross die per wafer: 550 pcs

Die and Assembly Information:

Die dimensions 5.08mm x 5.08mm

Die thickness 280µm (11mil)

Frontside metallization Ti/Ni/Ag

Backside metallization Ti/Ni/Ag

Dimension	Description	µm	Mil
A	Die Size	5080	200.0
B	Top Metal Pad Size	4965	195.5
C	Thickness	280	11.0

- (1) Cutting street width is around 20µm.
- (2) Both of top-side and back-side metals are Ag
- (3) Top-side Ag thk: 3.50µm, Back-side Ag thk: 2.0µm
- (4) Thickness(C) tolerance: +/-10µm
- (5) Polyimide passivation on SiO2 if necessary

Product Summary

ELECTRICAL CHARACTERISTICS	Symbol	Spec. Limit	Unit
Reverse Breakdown Voltage: Ir=5mA	VBRM (max)	40	Volt
Reverse Breakdown Voltage: Ir=5mA	VBRM (min)	36	Volt
Average Rectified Forward Current	IF	70.0	Amp
Maximum Instantaneous Forward Voltage			
@ 1m Amperes, Ta=25°C	VF (MAX)	0.25	Volt
@ 100 Amperes, Ta=25°C	VF (MAX)	0.69	Volt
Maximum Instantaneous Reverse Current			
VR = 16 Volt, Ta=25°C	IR MAX	2	uA
VR = 16 Volt, Tj=200°C	IR MAX	100	mA
MAXIMUM RATINGS			
Nonrepetitive Peak Surge Current			
Semi-Sine Wave, Duty = 8.3ms, 1 cycle	IFSM	400	Amp
Operating Junction Temperature	Tj	200	°C
Storage Temperatures	Tstg	-50 to +200	°C

1. Operating and storage temperature in assembled conditions: Tj, Tstg: -50~+200 °C
2. Specification is applied to die only. Actual performance may vary after assembly.
3. Suggest to storage in Nitrogen cabinet, 45-60% RH, 22-26 °C for 6 months.
4. Data sheet information is subjected to change without notice.
5. Suggest Soldering profile (Pb 92.5%, Sn 5%, Ag 2.5%): Soldering peak Temp. 340~350 °C @ 3~5min.

Disclaimers

These materials are intended as a reference to assist our customers in the selection of the Steifpower Technology products best suited to the customer's applications, they do not convey any license under any intellectual property rights, or any other rights, belonging to Steifpower Technology or third party. Steifpower Technology assumes no responsibility for any damage, or infringement of any third-party's rights, originating in the use of any product data, diagrams, charts, programs, algorithms, or circuit application examples contained in these materials. All information contained in these materials, including product data, diagrams, charts, programs and algorithms represents information on products at the time of publication of these materials, and are subject to change by Steifpower Technology without notice due to product improvements or other reasons.

It is therefore recommended that customers contact Steifpower Technology or an authorized Steifpower Technology distributor for the latest product information before purchasing a product listed herein.

The information described here may contain technical inaccuracies or typographical errors.

Steifpower Technology assumes no responsibility for any damage, liability, or other loss arising from these inaccuracies or errors.

Please also pay attention to information published by Steifpower Technology by various means including our website home page (<http://www.steifpower.com>).

When using any or all of the information contained in these materials, including product data diagrams, charts, programs, and algorithms, please be sure to evaluate all information as a total system before making a final decision on the applicability of the information and products.

Steifpower Technology assumes no responsibility for any damage, liability or other loss resulting from the information contained herein.

The prior written approval of Steifpower Technology is necessary to reprint or reproduce in whole or in part these materials.

Please contact Steifpower Technology or an authorized distributor for further details on these materials or the products contained herein.