

SPD10027LLD

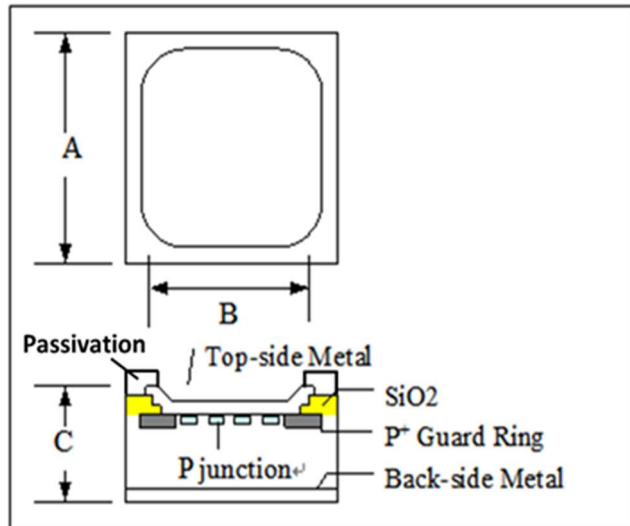
High Efficiency Low Loss Diode

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 5.29mm x 5.29mm

Die thickness 152µm (6mil)

Frontside metallization Ti/Ni/Ag

Backside metallization Ti/Ni/Ag

Passivation front side: Yes

Passivation thickness: 5µm

Dimension	Description	µm	Mil
A	Die Size	5290	208.2
B	Top Metal Pad Size	5215	205.3
C	Thickness	152	6

(1) Cutting street width is around 20µm.
 (2) Both of top-side and back-side metals are Ti/Ni/Ag
 (3) Top-side Ti/Ni thk: 0.42µm, Ag thk: 5.0µm
 (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)	29	Volt
Reverse Breakdown Voltage: Ir=5mA	VBRM (min)	25	Volt
Average Rectified Forward Current	IF	70.0	Amp
Maximum Instantaneous Forward Voltage			
@ 1m Amperes, Ta=25°C	VF (MAX)	0.26	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.

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