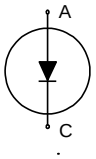
SIDC14D120H8

Fast switching diode chip in Emitter Controlled Technology

Features:
- 1200V technology 120 µm chip
- soft, fast switching
- low reverse recovery charge
- small temperature coefficient
- qualified according to JEDEC for target applications

Recommended for:
- power modules and discrete devices

Applications:
- SMPS, resonant applications, drives



Chip Type	V_R	I_{Fn}	Die Size	Package
SIDC14D120H8	1200V	25A	3.8 x 3.8 mm^2	sawn on foil

Mechanical Parameters

Die size		3.8 x 3.8	mm^2
Area total		14.44	
Anode pad size		3.08 x 3.08	
Thickness		120	µm
Wafer size		200	mm
Max. possible chips per wafer		1906	
Passivation frontside		Photoimide	
Pad metal		3200 nm AlSiCu	
Backside metal		Ni Ag –system To achieve a reliable solder connection it is strongly recommended not to consume the Ni layer completely during production process	
Die bond		Electrically conductive epoxy glue and soft solder	
Wire bond		Al, ≤500µm	
Reject ink dot size		∅ 0.65mm; max 1.2mm	
Storage environment	for original and sealed MBB bags	Ambient atmosphere air, Temperature 17°C – 25°C, < 6 month	
	for open MBB bags	Acc. to IEC62258-3: Atmosphere >99% Nitrogen or inert gas, Humidity <25%RH, Temperature 17°C – 25°C, < 6 month	

Edited by INFINEON Technologies, IPC TD VLS, L4055C, Rev. 2.2, 14.10.2015

SIDC14D120H8

Maximum Ratings

Parameter	Symbol	Condition	Value	Unit
Repetitive peak reverse voltage	V_{RRM}	T_{vj} = 25 °C	1200	V
Continuous forward current	I_F	T_{vj} < 150°C	[1)]	A
Maximum repetitive forward current[2)]	I_{FRM}	T_{vj} < 150°C	50	
Junction temperature range	T_{vj}		-40...+175	°C
Operating junction temperature	T_{vj}		-40...+150	

[1)] depending on thermal properties of assembly

[2)] not subject to production test - verified by design/characterisation

Static Characteristics (tested on wafer), T_{vj} = 25 °C

Parameter	Symbol	Conditions	Value			Unit
			min.	typ.	max.	
Reverse leakage current	I_R	V_R=1200V			20	µA
Cathode-Anode breakdown Voltage	V_{BR}	I_R=0.25mA	1200			V
Forward voltage drop	V_F	I_F=25A	1.23	1.6	1.97	

Electrical Characteristics (not subject to production test - verified by design/characterization)

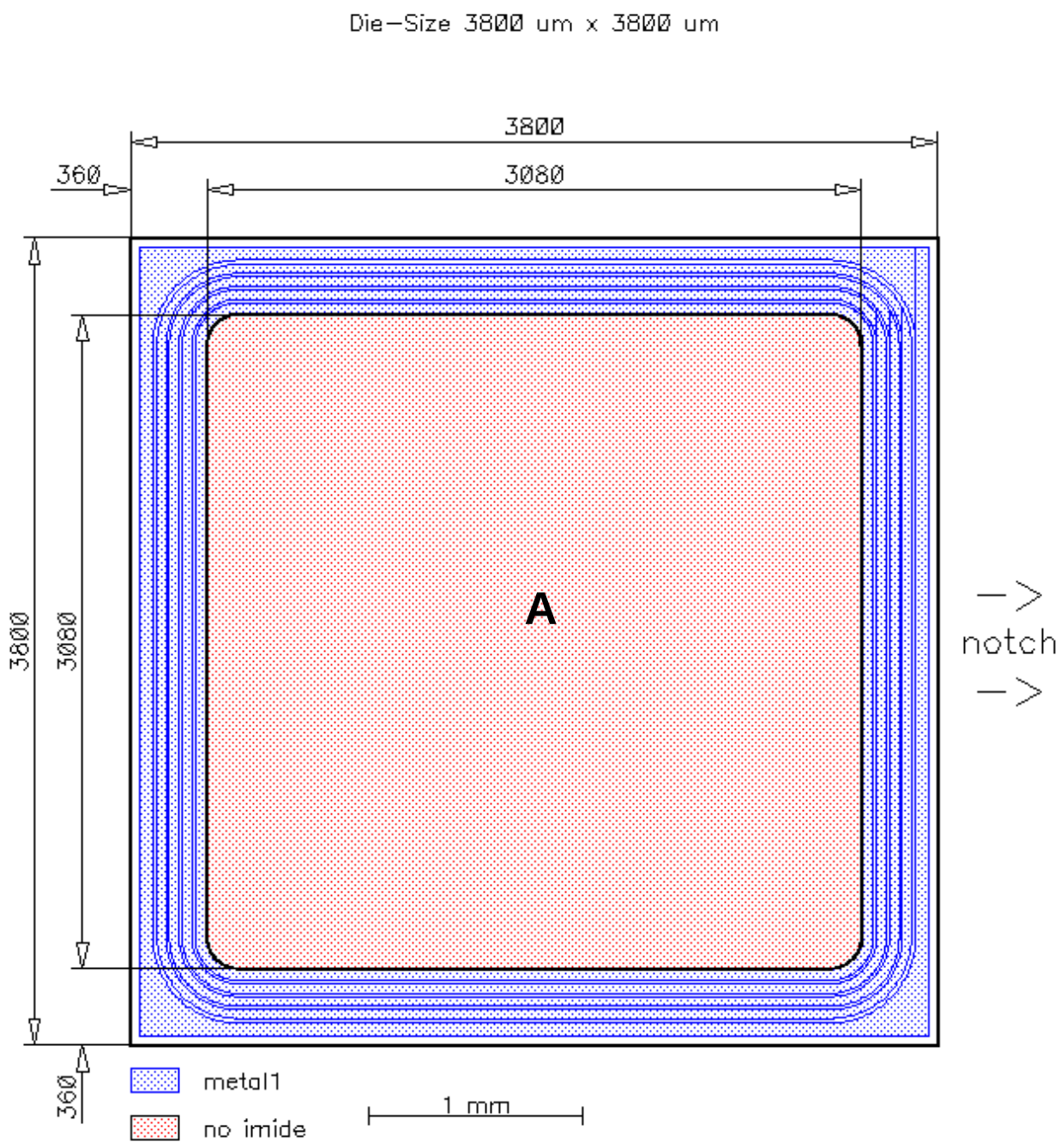
Parameter		Symbol	Conditions	Value			Unit
				min.	typ.	max.	
Forward voltage drop	T_{vj} = 125°C	V_F	I_F=25A		1.65		V

Further Electrical Characteristics

Switching characteristics and thermal properties are depending strongly on module design and mounting technology and can therefore not be specified for a bare die.

This chip data sheet refers to the device data sheet	FS25R12YT3	Rev. 2.0

Chip Drawing



A: Anode pad

SIDC14D120H8

Bare Die Product Specifics
Test coverage at wafer level cannot cover all application conditions. Therefore it is recommended to test all characteristics which are relevant for the application at package level, including RBSOA and SCSOA.

Description

AQL 0,65 for visual inspection according to failure catalogue
Electrostatic Discharge Sensitive Device according to MIL-STD 883

Revision History

Version	Subjects (major changes since last revision)	Date
2.0	Final data sheet	26.10.2012
2.1	Operating junction temperature	15.05.2013
2.2	Editorial changes	14.10.2015

SIDC14D120H8

Published by
Infineon Technologies AG
81726 München, Germany

IMPORTANT NOTICE

The information given in this document shall in no event be regarded as a guarantee of conditions or characteristics ("Beschaffenheitsgarantie"). With respect to any examples, hints or any typical values stated herein and/or any information regarding the application of the product, Infineon Technologies hereby disclaims any and all warranties and liabilities of any kind, including without limitation warranties of non-infringement of intellectual property rights of any third party.

In addition, any information given in this document is subject to customer's compliance with its obligations stated in this document and any applicable legal requirements, norms and standards concerning customer's products and any use of the product of Infineon Technologies in customer's applications.

The data contained in this document is exclusively intended for technically trained staff. It is the responsibility of customer's technical departments to evaluate the suitability of the product for the intended application and the completeness of the product information given in this document with respect to such application.

For further information on the product, technology, delivery terms and conditions and prices please contact your nearest Infineon Technologies office (**www.infineon.com**).

Please note that this product is not qualified according to the AEC Q100 or AEC Q101 documents of the Automotive Electronics Council.

WARNINGS

Due to technical requirements products may contain dangerous substances. For information on the types in question please contact your nearest Infineon Technologies office.

Except as otherwise explicitly approved by Infineon Technologies in a written document signed by authorized representatives of Infineon Technologies, Infineon Technologies' products may not be used in any applications where a failure of the product or any consequences of the use thereof can reasonably be expected to result in personal injury.

Edited by INFINEON Technologies, IPC TD VLS, L4055C, Rev. 2.2, 14.10.2015

单击下面可查看定价，库存，交付和生命周期等信息

>>Infineon(英飞凌)