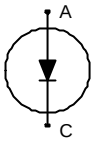
SIDC50D60C6

Fast switching diode chip in EMCON 3 -Technology

FEATURES:
- 600V EMCON 3 technology 70 µm chip
- soft, fast switching
- low reverse recovery charge
- small temperature coefficient

This chip is used for:
- power module

Applications:
- drives



Chip Type	V_R	I_F	Die Size	Package
SIDC50D60C6	600V	200A	9.2 x 5.44 mm^2	sawn on foil

MECHANICAL PARAMETER:

Raster size	9.2 x 5.44	mm^2
Area total / active	50.05 / 44.47	
Anode pad size	8.52 x 4.74	
Thickness	70	µm
Wafer size	150	mm
Flat position	180	deg
Max. possible chips per wafer	282 pcs	
Passivation frontside	Photoimide	
Anode metallization	3200 nm AlSiCu	
Cathode metallization	Ni Ag –system suitable for epoxy and soft solder die bonding	
Die bond	electrically conductive glue or solder	
Wire bond	Al, ≤500µm	
Reject ink dot size	∅ 0.65mm; max 1.2mm	
Recommended storage environment	store in original container, in dry nitrogen, < 6 month at an ambient temperature of 23°C	

Edited by INFINEON Technologies, AIM PMD D CID CLS, L4601M, Edition 1.1, 10.07.2006

Maximum Ratings

Parameter	Symbol	Condition	Value	Unit
Repetitive peak reverse voltage	V_{RRM}		600	V
Continuous forward current limited by T_{jmax}	I_F		[1]	A
Maximum repetitive forward current limited by T_{jmax}	I_{FRM}		400	
Operating junction and storage temperature	T_j , T_{stg}		-40...+175	°C

[1] depending on thermal properties of assembly

Static Electrical Characteristics **(tested on chip)**, T_j=25 °C, unless otherwise specified

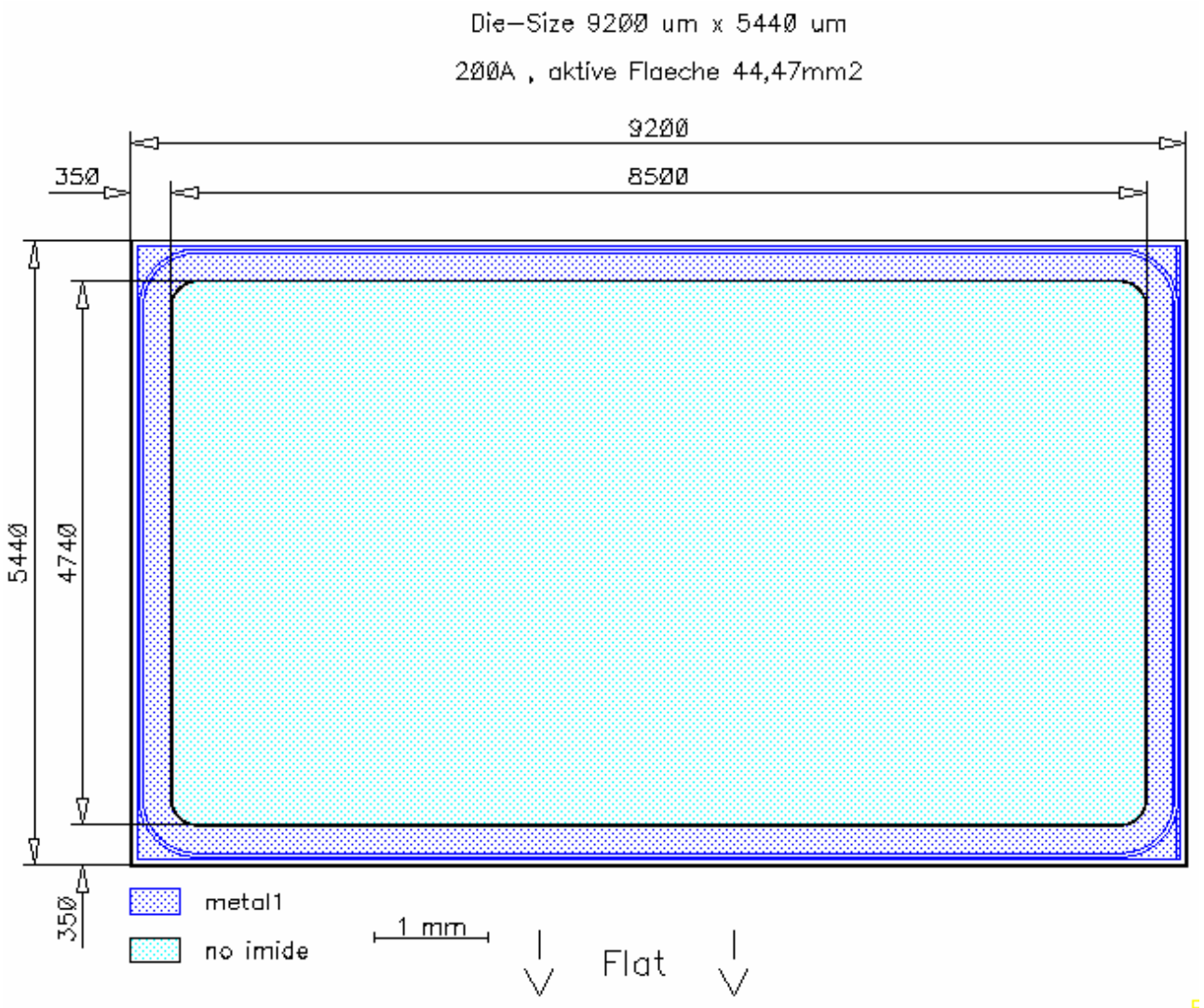
Parameter	Symbol	Conditions		Value			Unit
				min.	Typ.	max.	
Reverse leakage current	I_R	V_R=600V	T_j=25°C			27	µA
Cathode-Anode breakdown Voltage	V_{Br}	I_R=0.25mA	T_j=25°C	600			V
Forward voltage drop	V_F	I_F=200A	T_j=25°C	1.2	1.6	1.9	V

Dynamic Electrical Characteristics (verified by design/characterization), inductive load

Parameter	Symbol	Conditions		Value [2]			Unit
				min.	Typ.	max.	
Peak reverse recovery current	I_{RM}	I_F=200A di/dt=5700A/ms V_R=300V V_{GE}= -15V	T_j = 25 °C T_j = 125 °C T_j = 150 °C		160 230 240		A
Recovered charge	Q_r	I_F=200A di/dt=5700A/ms V_R=300V V_{GE}= -15V	T_j = 25 °C T_j = 125 °C T_j = 150 °C		10.0 17.0 20.0		µC
Reverse recovery energy	E_{rec}	I_F=200A di/dt=5700A/ms V_R=300V V_{GE}= -15V	T_j = 25 °C T_j = 125 °C T_j = 150 °C		3.00 5.20 5.80		mJ

[2] values also influenced by parasitic L- and C- in measurement and package.

CHIP DRAWING:



SIDC50D60C6

FURTHER ELECTRICAL CHARACTERISTICS:

This chip data sheet refers to the device data sheet	FS200R06KE3	

Description:

AQL 0,65 for visual inspection according to failure catalog

Electrostatic Discharge Sensitive Device according to MIL-STD 883

Test-Normen Villach/Prüffeld

Published by
Infineon Technologies AG
81726 München, Germany

Attention please!

The information herein is given to describe certain components and shall not be considered as warranted characteristics.

Terms of delivery and rights to technical change reserved.

We hereby disclaim any and all warranties, including but not limited to warranties of non-infringement, regarding circuits, descriptions and charts stated herein.

Infineon Technologies is an approved CECC manufacturer.

Information

For further information on technology, delivery terms and conditions and prices please contact your nearest Infineon Technologies Office in Germany or our Infineon Technologies Representatives world-wide (see address list).

Warnings

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

Infineon Technologies components may only be used in life-support devices or systems with the express written approval of Infineon Technologies, if a failure of such components can reasonably be expected to cause the failure of that life-support device or system, or to affect the safety or effectiveness of that device or system. Life support devices or systems are intended to be implanted in the human body, or to support and / or maintain and sustain and / or protect human life. If they fail, it is reasonable to assume that the health of the user or other persons may be endangered.

Edited by INFINEON Technologies, AIM PMD D CID CLS, L4601M, Edition 1.1, 10.07.2006

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)