IXYS
A Littelfuse Technology

Diode Chip DWPJ62-16

Rectifier

tentative

Circuit Diagram

Product Summary

Characteristics	Value	Unit
V_{RRM}	1600	V
I $F_{(AV)}$	100	A
Chip Dimensions	8,5x7,3	mm
unsawn wafer	Yes	
sawn on foil	Yes	
in waffle pack	Yes	

Applications

- DC Power Supplies
- Field Supply for DC motors
- Battery DC Power Supplies
- Power Rectifiers

Features

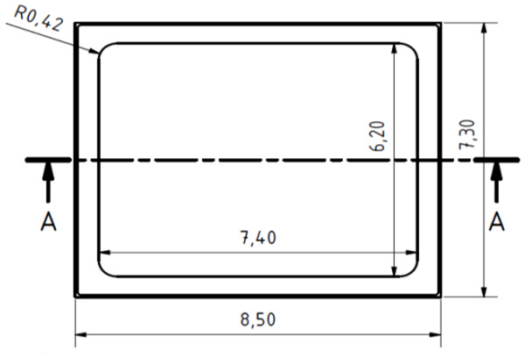
- glassivation
- Tvjm = 150°C
- advanced planar technology
- soft recovery rectifier diode
- high commutation robustness
- anode top

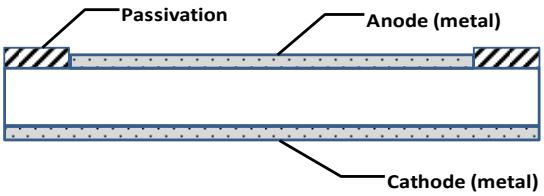
Mechanical Characteristic

Characteristic	Conditions		Value	Unit
Area active			47,18	mm²
Area total			62,05	mm²
Thickness			265	µm
Wafer size Ø			150	mm
Die Per Wafer			210	
Material			Si	
Passivation front side			Glass	
Metalisation front side		bondable:	Al	
Metalisation back side		solderable (only):	Al/Ti/NiV/Ag	
Recom. wire bonds (Al)	Anode	Number	6	
*= stitch bonds		Ø	380	µm
Reject ink dot size		Ø	0.4 - 1.0	mm
Recom. solder temp.			<300	°C
Recom. Storage environment	sawn on foil	in org. container, in dry nitrogen	<6	month
	unsawn wafer	in org. container, in dry nitrogen	<2	year
	in waffle pack	in org. container, in dry nitrogen	<2	year
Storage temp.			-40...40	°C

Dimensions

All dimensions in mm





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Electrical Parameters

Symbol	Conditions			Value			Unit
				Min	Typ	Max	
Static Characteristics							
V_R	$V = V_{RRM}$		Tvj = 25°C			1600	V
I_R	$V = V_{RRM}$		Tvj = 25°C			50	µA
			Tvj = 150°C			0,5	mA
V_F	If = 140A		Tvj = 25°C		1,10	1,20	V
			Tvj = 150°C		1,04		V
V_{F0}	For power loss calculations only					0,90	V
r_F			Tvj = 150°C			1,8	mΩ
T_{VJ}				-40		150	°C
$I_{F(AV)}$ *	DC		Tc = 100°C		100		A
R_{thJC} *	DC current					0,4	K/W
I_{FSM}	Tvj = 45 °C	t = 10 ms	(50) Hz , sine			1400	A
	V_R = 0 V	t = 8.3 ms	(60) Hz , sine			1400	A
	Tvj = 150 °C	t = 10 ms	(50) Hz , sine			1200	A
	V_R = 0 V	t = 8.3 ms	(60) Hz , sine			1200	A
I^2t	Tvj = 45 °C	t = 10 ms	(50) Hz , sine			9800	A^2s
	V_R = 0 V	t = 8.3 ms	(60) Hz , sine			8100	A^2s
	Tvj = 150 °C	t = 10 ms	(50) Hz , sine			7200	A^2s
	V_R = 0 V	t = 8.3 ms	(60) Hz , sine			5900	A^2s

* Data according to assembled 380µm DCB

Data according to IEC 60747

Terms & Conditions of Use

The data contained in this product datasheet is exclusively intended for technically trained staff. The user will have to evaluate the suitability of the product for the intended application and the completeness of the product data with respect to his application. The specifications of our components may not be considered as an assurance of component characteristics. Should you require product information in excess of the data given in this product datasheet or which concerns the specific application of our product, please contact the sales office, which is responsible for you. Due to technical requirements our product may contain dangerous substances. For any information on the types in question please contact the sales office/partner, which is responsible for you. Should you intend to use the product in aviation applications, in life or health endangering or life support applications, please notify. For any such applications we urgently recommend

- to perform joint risks and quality assessments;

- the conclusion of quality agreements;

- to establish joint measures to ensure application specific product capabilities and notify that IXYS may deliver dependant on the realisation of any such measures.