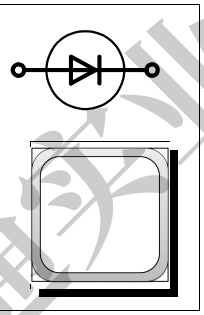
IXYS Diode Chip DWN 500 -22

tentative

Type	Ag* Al*	V_{DRM} / V_{RRM}	$I_{F(AV)}$ [A]	Chip Size [mm] x [mm]	Package Options	
DWN 500	☑ ☑	2200	780	22.40 22.4	sawn on foil	☑
					unsawn wafer	☑ *
					in waffle pack	☑

*Frontside options

*Please contact IXYS chip sales



Mechanical Parameters

Area active		436.40	mm^2
Area total		501.76	mm^2
Wafer size Ø		150	mm
Thickness		315	µm
Material		Si	
Max. possible chips per wafer		24	
Passivation front side		Glassivation	
Metallization top side	solderable:	Al / Ti / Ni / Ag *	
top side	bondable:	Al	
Metallization backside	solderable (only):	Al / Ti / Ni / Ag *	
Recom. wire bonds (Al)	Number	25	
	Ø	500	µm
Reject Ink Dot Size	Ø	0.4-1.0	mm
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
	T	-40 ... 40	°C

*Sinterable top/bottom side on request

Features

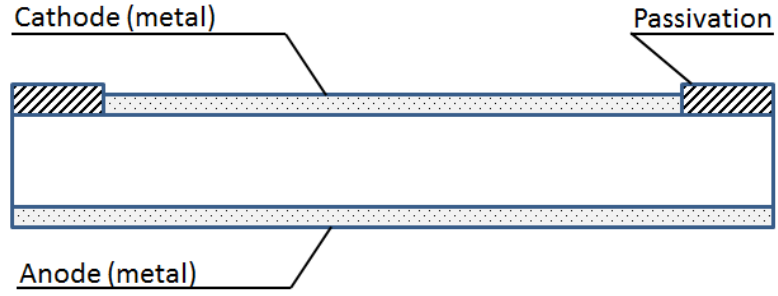
- with separation diffusion
- cathode top

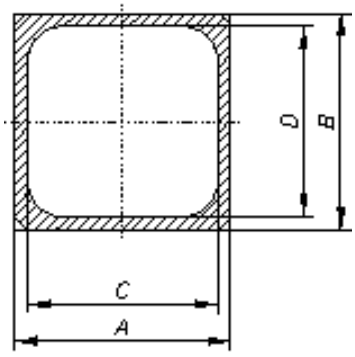
Applications

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

Dimensions

A [mm]	B [mm]	C [mm]	D [mm]
22.40	22.40	21.00	21.00





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Electrical parameters

Symbol	Conditions		Ratings min.	typ.	max.	
V_D / V_R	T_{VJ} = 25°C		2200			V
I_R	$V_R = V_{RRM}$	T_{VJ} = 25°C			200	µA
	V_R = 0.8·V_{RRM}	T_{VJ} = 150°C			5	mA
V_F	I_F = 600 A	T_{VJ} = 25°C			1.10	V
		T_{VJ} = 150°C			1.00	V
V_{F0}	For power-loss calculations only				0.81	V
r_F	T_{VJ} = 150°C				0.3	mΩ
T_{VJ}			-40		150	°C
$I_{F(AV)}$ *	T_C = 100 °C	180° rect. T_{VJ} = 150°C			780	A
I_{FSM} *	T_{VJ} = 45°C	t = 10 ms (50) Hz, sine			11500	A
	V_R = 0 V	t = 8.3 ms (60) Hz, sine			12300	A
	T_{VJ} = 150°C	t = 10 ms (50) Hz, sine			10000	A
	V_R = 0 V	t = 8.3 ms (60) Hz, sine			10700	A
I^2t *	T_{VJ} = 45°C	t = 10 ms (50) Hz, sine			661250	A s^2
	V_R = 0 V	t = 8.3 ms (60) Hz, sine			630370	A s
	T_{VJ} = 150°C	t = 10 ms (50) Hz, sine			500000	A s^2
	V_R = 0 V	t = 8.3 ms (60) Hz, sine			477040	A s^2
R_{thJC} *	DC current				0.05	K/W

* Data according to assembled Chip (soldered front) Data according to IEC 60747

Note: R_thJC calculated, no guarantee

Terms of Conditions and Usage

The data contained in this product data sheet 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 data sheet 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 health or life endangering or life support applications, please notify. For any such applications we urgently recommend

- to perform joint risk and quality assessments;

- the conclusion of quality agreements;

- to establish joint measures to ensure application specific product capabilities and notify that IXYS may delivery dependent on the realization of any such measures.