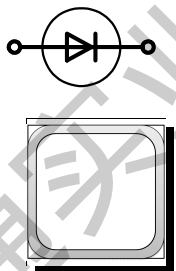


Type	Ag* Al*	V <sub>DRM</sub> / V <sub>R<sub>RM</sub></sub>	I <sub>F(AV)</sub> [A]	Chip Size [mm] x [mm]	Package Options
DWN 9	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	1800	20	3.90 3.90	sawn on foil <input checked="" type="checkbox"/> unsawn wafer <input checked="" type="checkbox"/> * in waffle pack <input checked="" type="checkbox"/>

\*Frontside options

\*Please contact IXYS chip sales



## Mechanical Parameters

Area active	7.79	mm <sup>2</sup>
Area total	15.21	mm <sup>2</sup>
Wafer size Ø	150	mm
Thickness	265	µm
Material	Si	
Max. possible chips per wafer	923	
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 4	
	Ø 380	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

### Features

- with separation diffusion
- cathode top

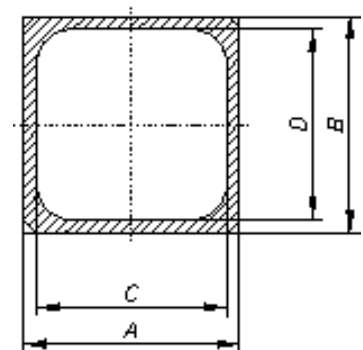
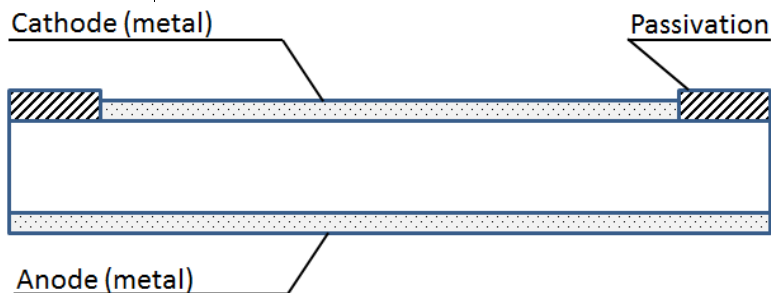
### Applications

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

\*Sinterable top/bottom side on request

## Dimensions

A	B	C	D
[mm]	[mm]	[mm]	[mm]
3.90	3.90	2.60	2.60



## Electrical parameters

Symbol	Conditions	Ratings		
		min.	typ.	max.
$V_D / V_R$	$T_{VJ} = 25^\circ\text{C}$	1800		V
$I_R$	$V_R = V_{RRM}$ $T_{VJ} = 25^\circ\text{C}$			10 $\mu\text{A}$
	$V_R = 0.8 \cdot V_{RRM}$ $T_{VJ} = 150^\circ\text{C}$			1 mA
$V_F$	$I_F = 30 \text{ A}$ $T_{VJ} = 25^\circ\text{C}$			1.29 V
	$T_{VJ} = 125^\circ\text{C}$			1.31 V
$V_{FO}$	For power-loss calculations only			0.86 V
$r_F$	$T_{VJ} = 150^\circ\text{C}$			12.3 m $\Omega$
$T_{VJ}$		-40		150 $^\circ\text{C}$
$I_{F(AV)}$ *	$T_C = 100 \text{ }^\circ\text{C}$ 180° rect. $T_{VJ} = 150^\circ\text{C}$		20	A
$I_{FSM}$ *	$T_{VJ} = 45^\circ\text{C}$ $t = 10 \text{ ms}$ (50) Hz, sine			270 A
	$V_R = 0 \text{ V}$ $t = 8.3 \text{ ms}$ (60) Hz, sine			290 A
	$T_{VJ} = 150^\circ\text{C}$ $t = 10 \text{ ms}$ (50) Hz, sine			230 A
	$V_R = 0 \text{ V}$ $t = 8.3 \text{ ms}$ (60) Hz, sine			250 A
$I^2 t$ *	$T_{VJ} = 45^\circ\text{C}$ $t = 10 \text{ ms}$ (50) Hz, sine			360 A s <sup>2</sup>
	$V_R = 0 \text{ V}$ $t = 8.3 \text{ ms}$ (60) Hz, sine			350 A s
	$T_{VJ} = 150^\circ\text{C}$ $t = 10 \text{ ms}$ (50) Hz, sine			260 A s <sup>2</sup>
	$V_R = 0 \text{ V}$ $t = 8.3 \text{ ms}$ (60) Hz, sine			260 A s <sup>2</sup>
$R_{thJC}$ *	DC current			1.80 K/W

\* Data according to assembled Chip

Data according to IEC 60747

Note: I\_FSM value depends on method of assembly

## Terms of Conditions and Usage

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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.