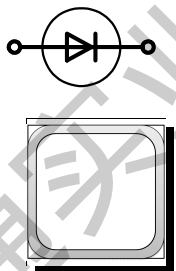


Type	Ag* Al*	V _{DRM} / V _{RRM}	I _{F(AV)} [A]	Chip Size [mm] x [mm]	Package Options
DWN 2	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	1600	12	2.95 2.95	sawn on foil <input checked="" type="checkbox"/> unsawn wafer <input checked="" type="checkbox"/> * in waffle pack <input checked="" type="checkbox"/>

*Frontside options

*Please contact IXYS chip sales



Mechanical Parameters

Area active	3.75 mm ²
Area total	8.70 mm ²
Wafer size Ø	150 mm
Thickness	265 µm
Material	Si
Max. possible chips per wafer	1626
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 2
	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

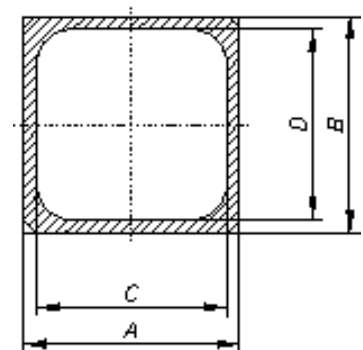
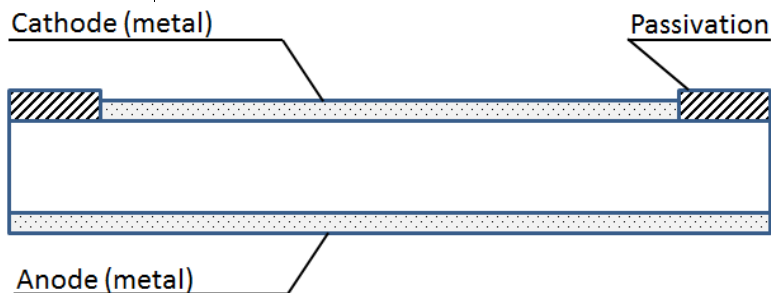
Applications

- 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]
2.95	2.95	1.8	1.8



Electrical parameters

Symbol	Conditions	Ratings		
		min.	typ.	max.
V_D / V_R	$T_{VJ} = 25^\circ\text{C}$	1600		V
I_R	$V_R = V_{RRM}$ $T_{VJ} = 25^\circ\text{C}$			5 μA
	$V_R = 0.8 \cdot V_{RRM}$ $T_{VJ} = 150^\circ\text{C}$			0.7 mA
V_F	$I_F = 7$ A $T_{VJ} = 25^\circ\text{C}$			1.11 V
	$T_{VJ} = 150^\circ\text{C}$			1.01 V
V_{FO}	For power-loss calculations only			0.81 V
r_F	$T_{VJ} = 150^\circ\text{C}$			28.5 m Ω
T_{VJ}		-40		150 $^\circ\text{C}$
$I_{F(AV)}$ *	$T_C = 100$ $^\circ\text{C}$ 180° rect. $T_{VJ} = 150^\circ\text{C}$		12	A
I_{FSM} *	$T_{VJ} = 45^\circ\text{C}$ t = 10 ms (50) Hz, sine			150 A
	$V_R = 0$ V t = 8.3 ms (60) Hz, sine			160 A
	$T_{VJ} = 150^\circ\text{C}$ t = 10 ms (50) Hz, sine			130 A
	$V_R = 0$ V t = 8.3 ms (60) Hz, sine			140 A
$I^2 t$ *	$T_{VJ} = 45^\circ\text{C}$ t = 10 ms (50) Hz, sine			110 A s ²
	$V_R = 0$ V t = 8.3 ms (60) Hz, sine			110 A s
	$T_{VJ} = 150^\circ\text{C}$ t = 10 ms (50) Hz, sine			80 A s ²
	$V_R = 0$ V t = 8.3 ms (60) Hz, sine			80 A s ²
R_{thJC} *	DC current			2.90 K/W

* Data according to assembled Chip (solderable)

Data according to IEC 60747

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.