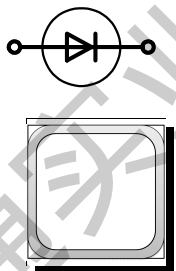


Type	Ag* Al*	V _{DRM} / V _{RRM}	I _{F(AV)} [A]	Chip Size [mm] x [mm]	Package Options
DWN 50	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	1600	78	7.10 7.10	sawn on foil <input checked="" type="checkbox"/> unsawn wafer <input checked="" type="checkbox"/> * in wafile pack <input checked="" type="checkbox"/>

*Frontside options

*Please contact IXYS chip sales



Mechanical Parameters

Area active	34.46	mm ²
Area total	50.41	mm ²
Wafer size Ø	150	mm
Thickness	265	µm
Material	Si	
Max. possible chips per wafer	266	
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 5	
	Ø 300	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 wafile pack	in org. container, in dry nitrogen	< 2 year
T	-40 ... 40	°C

Features

- with separation diffusion
- cathode top

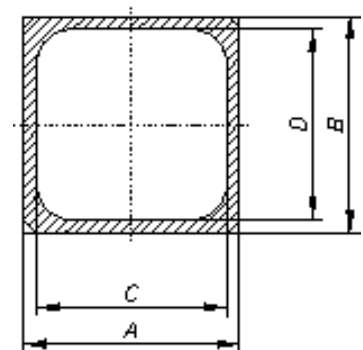
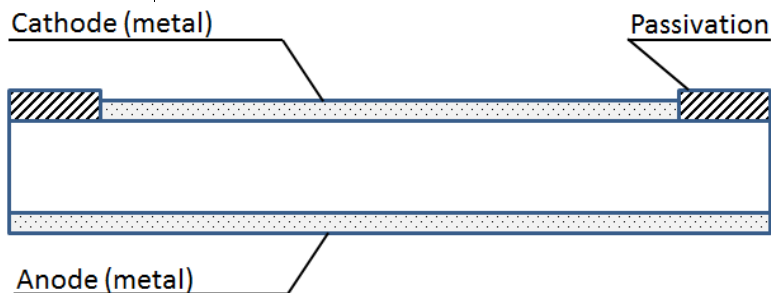
Applications

- 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]
7.10	7.10	5.70	5.70



Electrical parameters

Symbol	Conditions	Ratings		
		min.	typ.	max.
V_D / V_R	$T_{VJ} = 25^\circ\text{C}$	1600		V
I_R	$V_R = V_{RRM}$ $T_{VJ} = 25^\circ\text{C}$			50 μA
	$V_R = 0.8 \cdot V_{RRM}$ $T_{VJ} = 150^\circ\text{C}$			2 mA
V_F	$I_F = 150 \text{ A}$ $T_{VJ} = 25^\circ\text{C}$			1.31 V
	$T_{VJ} = 150^\circ\text{C}$			1.28 V
V_{FO}	For power-loss calculations only			0.87 V
r_F	$T_{VJ} = 150^\circ\text{C}$			2.7 m Ω
T_{VJ}		-40		150 $^\circ\text{C}$
$I_{F(AV)}$ *	$T_C = 100^\circ\text{C}$ 180° rect. $T_{VJ} = 150^\circ\text{C}$		78	A
I_{FSM} *	$T_{VJ} = 45^\circ\text{C}$ t = 10 ms (50) Hz, sine			1100 A
	$V_R = 0 \text{ V}$ t = 8.3 ms (60) Hz, sine			1200 A
	$T_{VJ} = 150^\circ\text{C}$ t = 10 ms (50) Hz, sine			1000 A
	$V_R = 0 \text{ V}$ t = 8.3 ms (60) Hz, sine			1000 A
$I^2 t$ *	$T_{VJ} = 45^\circ\text{C}$ t = 10 ms (50) Hz, sine			6050 A s ²
	$V_R = 0 \text{ V}$ t = 8.3 ms (60) Hz, sine			6000 A s
	$T_{VJ} = 150^\circ\text{C}$ t = 10 ms (50) Hz, sine			5000 A s ²
	$V_R = 0 \text{ V}$ t = 8.3 ms (60) Hz, sine			4170 A s ²
R_{thJC} *	DC current			0.50 K/W

* Data according to assembled Chip

(solderable chip)

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.