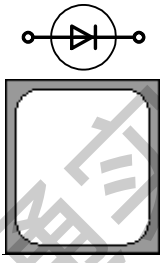


HiPer FRED

Type	Ag* Al*	V _{RRM} [V]	I _F [A]	Chip Size [mm] x [mm]	Package Options
DWLP 23	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	600	40	5.50 3.50	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



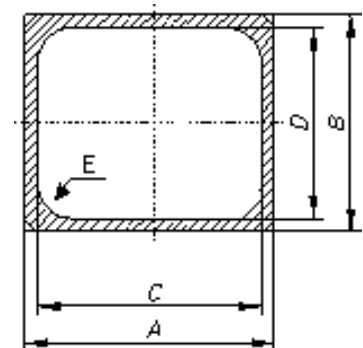
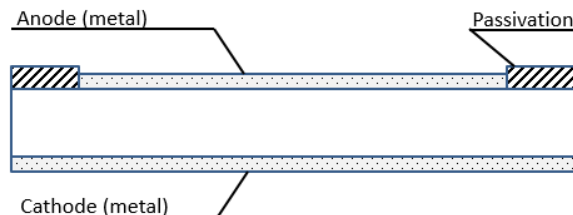
Mechanical Parameters

Area active	11.08	mm ²	Features: <ul style="list-style-type: none"> • Anode top • Pt doped • Epitaxial diode • Planar surface • Glass passivated Applications: <ul style="list-style-type: none"> • Antiparallel diode for high frequency switching devices • Antisaturation diode • Snubber diode • Free wheeling diode in converters and motor control circuits • Rectifiers in switch mode power supplies (SMPS) • Inductive heating • Uninterruptible power supplies (UPS) • Ultrasonic cleaners and welders • PDP
Area total	19.25	mm ²	
Wafer size Ø	150	mm	
Thickness	365	µm	
Material	Si		
Max. possible chips per wafer	770		
Passivation front side	Glass		
Metallization top side	bondable or solderable		
Metallization backside	solderable (only): Al / Ti / Ni / Ag		
Recom. wire bonds (Al)	Anode	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 wafile pack	in org. container, in dry nitrogen	< 2 year	
	T _{stg}	-40 ... 40 °C	

*Sinterable top/bottom side on request

Dimensions

A	B	C	D	E
[mm]	[mm]	[mm]	[mm]	[mm]
5.50	3.50	4.50	2.50	0.20



Electrical parameters

Symbol	Conditions	Ratings		
		min.	typ.	max.
I_R	$V = V_{RRM}$ $T_{VJ} = 25^\circ\text{C}$ $T_{VJ} = 150^\circ\text{C}$			10 μA
				2 mA
V_F	$I_F = 30\text{ A}$ $T_{VJ} = 25^\circ\text{C}$ $T_{VJ} = 150^\circ\text{C}$			2.45 V
				1.53 V
V_{FO}	For power-loss calculations only			0.84 V
r_F	$T_{VJ} = 175^\circ\text{C}$			17.00 m Ω
T_{VJ}		-55		175 $^\circ\text{C}$
$I_{F(AV)}$ *	$T_C = 125^\circ\text{C}; 180^\circ\text{ rect.}$			40 A
I_{FSM} *	$T_{VJ} = 45^\circ\text{C}; t = 10\text{ ms (50 Hz), sine}$			250 A
R_{thJC} *	DC current			0.9 K/W
t_{rr}	$V_R = 30$ $I_F = 1\text{ A}; -di_F/dt = 200\text{ A}/\mu\text{s}; T_{VJ} = 25^\circ\text{C}$		30	ns
I_{RM}	$V_R = 100$ $I_F = 50\text{ A}; -di_F/dt = 100\text{ A}/\mu\text{s}; T_{VJ} = 25^\circ\text{C}$		1.70	2.00 A

* Data according to assembled Chip

Data according to IEC 60747

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.