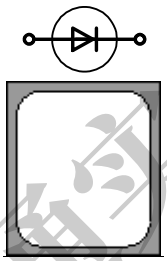
IXYS Diode Chip DWLP 55-06

HiPer FRED

Type	Ag* Al*	V_{RRM} [V]	I_F [A]	Chip Size [mm] x [mm]	Package Options
DWLP 55	☑ ☑	600	60	8.65 4.95	sawn on foil ☑ unsawn wafer ☑* in waffle pack ☑

*Frontside options

*Please contact IXYS chip sales



Mechanical Parameters

Area active		30.05	mm^2
Area total		42.82	mm^2
Wafer size Ø		150	mm
Thickness		365	µm
Material		Si	
Max. possible chips per wafer		342	
Passivation front side		Glass	
Metallization top side		bondable or solderable	
Metallization backside		solderable (only): Al / Ti / Ni / Ag	
Recom. wire bonds (Al)	Anode	Number 9	
		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_{stg}	-40 ... 40	°C

*Sinterable top/bottom side on request

Features:

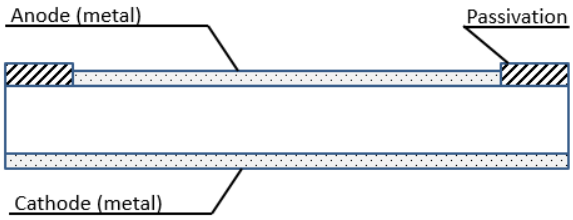
- Anode top
- Pt doped
- Epitaxial diode
- Planar surface
- Glass passivated

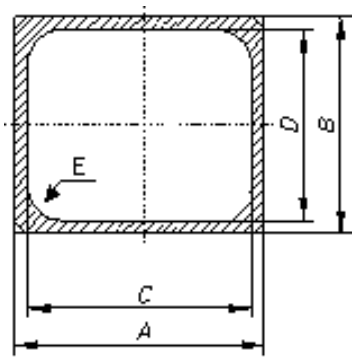
Applications:

- 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

Dimensions

A [mm]	B [mm]	C [mm]	D [mm]	E [mm]
8.65	4.95	7.65	3.95	0.20





Electrical parameters

Symbol	Conditions			Ratings min.	typ.	max.	
I_R	V = V_{RRM}	T_{VJ} = 25°C				20	µA
		T_{VJ} = 150°C				2.5	mA
V_F	I_F = 60 A	T_{VJ} = 25°C				1.92	V
		T_{VJ} = 150 °C				1.24	V
V_{F0}	For power-loss calculations only					0.95	V
r_F	T_{VJ} = 175 °C					2.40	mΩ
T_{VJ}				-55		175	°C
$I_{F(AV)}$ *	T_C = 125 °C; 180° rect.					60	A
I_{FSM} *	T_{VJ} = 45°C; t = 10 ms (50 Hz), sine					600	A
R_{thJC} *	DC current					0.65	K/W
t_{rr}	V_R = 30	I_F = 1 A;	-di_F/dt = 300 A/µs; T_{VJ} = 25°C		35		ns
I_{RM}	V_R = 100	I_F = 130 A;	-di_F/dt = 100 A/µs; T_{VJ} = 25°C			4.00	A

* Data according to assembled Chip

Data according to IEC 60747

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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.