IXYS Diode Chip DWEP 19-12

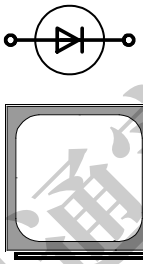
FRED

tentative

Type	Ag* Al*	V_{RRM} [V]	I_F [A]	Chip Size [mm] x [mm]	Package
DWEP 19	☑ ☑	1200	20	4.45 4.45	sawn on foil ☑ unsawn wafer ☑* in waffle pack ☑

*Frontside options

*Please contact IXYS chip sales



Mechanical Parameters

Area active		11.73	mm 2
Area total		19.80	mm 2
Wafer size Ø		150	mm
Thickness		425	µm
Material		Si	
Max. possible chips per wafer		764	
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 waffle pack	in org. container, in dry nitrogen	< 2	year
	T_{stg}	-40 ... 40	°C

Features

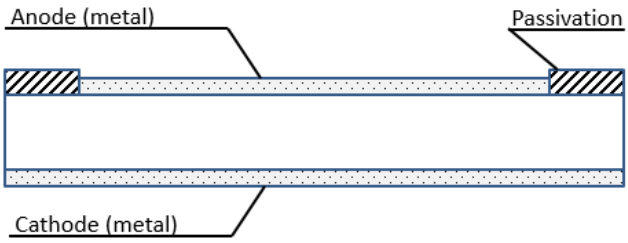
- Anode top
- Glassivated
- Au doped
- Planar surface
- Epitaxial diode

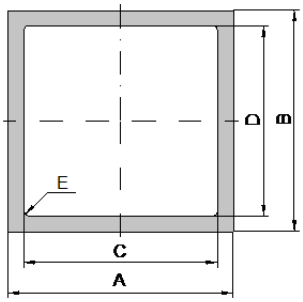
Applications

- 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]
4.45	4.45	3.45	3.45	0.20





Electrical parameters

Symbol		Conditions				Ratings min.	typ.	max.	
I_R		$V = V_{RRM}$	$T_{VJ} =$ 25°C					100	µA
		$V = 0.8 \cdot V_{RRM}$	$T_{VJ} =$ 125°C					7	mA
V_F		$I_F =$ 30 A	$T_{VJ} =$ 25°C					2.50	V
			$T_{VJ} =$ 150 °C					2.19	V
V_{F0}	*	For power-loss calculations only						tbd	V
r_F	*	$T_{VJ} =$ 150 °C						tbd	mΩ
T_{VJ}						-55		150	°C
$I_{F(AV)}$	*	$T_C =$ °C	180° rect.	$T_{VJ} =$ 150 °C				20	A
I_{FSM}	*	$T_{VJ} =$ 45°C	t = 10 ms (50 Hz), sine	$V_R =$ 0 V				tbd	A
R_{thJC}	*	DC current						tbd	K/W
t_{rr}	*	$V_R =$ V;	$I_F =$ A:	$-di_F/dt =$ A/µs	$T_{VJ} =$ 25°C		tbd		ns
I_{RM}		$V_R =$ 100 V;	$I_F =$ 50 A;	$-di_F/dt =$ 100 A/µs	$T_{VJ} =$ 25°C			7	A

* Data according to assembled Chip

Data according to IEC 60747

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- 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.