



Type	V_{RRM} [V]	$I_{F(AV)}$ [A]	Chip Size [mm] x [mm]		Package
DSHP 11-18	1800	12	3,25	3,25	sawn on foil <input checked="" type="checkbox"/>
					unsawn wafer <input checked="" type="checkbox"/> *
					in waffle pack <input checked="" type="checkbox"/>

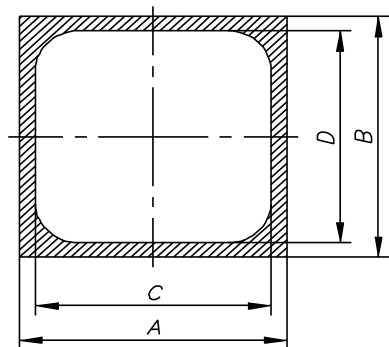
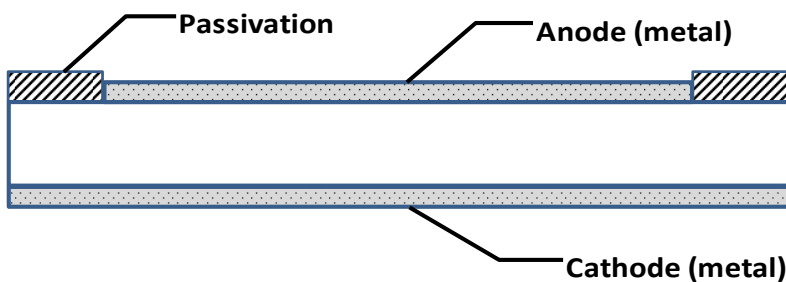
*Please Contact
IXYS Chip Sales

Mechanical Parameters

Area active		2,95 mm ²	Features <ul style="list-style-type: none"> fast, soft SONIC diode low forward voltage drop small temp. Coefficient low switching losses high ruggedness anode top Tvj_m = 175°C Applications <ul style="list-style-type: none"> antiparallel diode for high frequency switching antisaturation diode snubber diode freewheeling diode in converters & motor control rectifiers in switch mode power supplies (SMPS) inductive heating & melting uninterruptible power supplies (UPS) ultrasonic cleaners & welders
Area total		10,56 mm ²	
Wafer size Ø		150 mm	
Thickness		290 µm	
Die Per Wafer		1386	
Material		Si	
Passivation front side		Polyimide	
Metalisation front side	bondable:	Al	
Metalisation back side	solderable (only):	Al/Ti/NiV/Ag	
Recom. wire bonds (Al)	Anode	Number	
*= stitch bonds		Ø	
Reject ink dot size		380 µm	
Recom. solder temp.		0.4 - 1.0 mm	
Recom. Storage environment		<300 °C	
	sawn on foil	in org. container, in dry nitrogen	
	unsawn wafer	in org. container, in dry nitrogen	<2 year
	in waffle pack	in org. container, in dry nitrogen	<2 year
Storage temp.			-40...40 °C

Dimensions

A	B	C	D
[mm]	[mm]	[mm]	[mm]
3,25	3,25	1,69	1,69



Electrical Parameters

Symbol	Conditions	Ratings			Units
		min	typ	max	
I_R	$V = V_{RRM}$	$T_{vj} = 25\text{ °C}$		50	μA
		$T_{vj} = 150\text{ °C}$	0,4		mA
V_F	$I_f = 10\text{ A}$	$T_{vj} = 25\text{ °C}$	1,95	2,25	V
		$T_{vj} = 150\text{ °C}$	2,10		V
V_{FO}	For power loss calculations only			1,4	V
r_F		$T_{vj} = 175\text{ °C}$		98,0	$\text{m}\Omega$
T_{VJ}				-55	°C
$I_{F(AV)}$ *	DC	$T_c = 80\text{ °C}$	12		A
I_{FSM} *	$V = 0\text{V}$	$T_{vj} = 45\text{ °C}$		60	A
R_{thJC} *	DC current			3	K/W
Q_{rr}					μC
I_{RM}	$V = 900\text{ V}$	$T_{vj} = 25\text{ °C}$			A
		$dI_f/dt = 350\text{ A}/\mu\text{s}$			
t_{rr}	$I_f = 10\text{ A}$				ns
E_{rec}					mJ
Q_{rr}	$V = 900\text{ V}$	$T_{vj} = 150\text{ °C}$	3		μC
		$dI_f/dt = 350\text{ A}/\mu\text{s}$	16		A
t_{rr}	$I_f = 10\text{ A}$		200		ns
E_{rec}			1,2		mJ

 * Data according to assembled 380 μm DCB

Data according to IEC 60747

Terms of Conditions & Usage

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Should you intend to use the product in aviation applications, in life or health endangering or life support applications, please notify. For any such applications we urgently recommend

- to perform joint risks and quality assessments;

- the conclusion of quality agreements;

- to establish joint measures to ensure application specific product capabilities and notify that IXYS may deliver dependant on the realisation of any such measures.