



Type	$V_{RRM}$ [V]	$I_{F(AV)}$ [A]	Chip Size [mm] x [mm]		Package
<b>DSHP 20-18</b>	1800	23	4,45	4,45	sawn on foil <input checked="" type="checkbox"/>
					unsawn wafer <input checked="" type="checkbox"/> *
					in waffle pack <input checked="" type="checkbox"/>

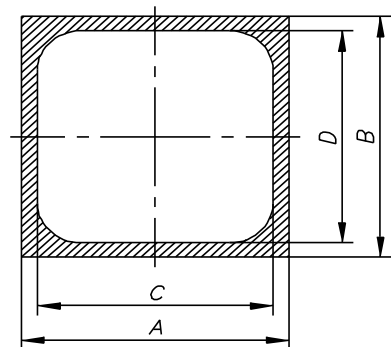
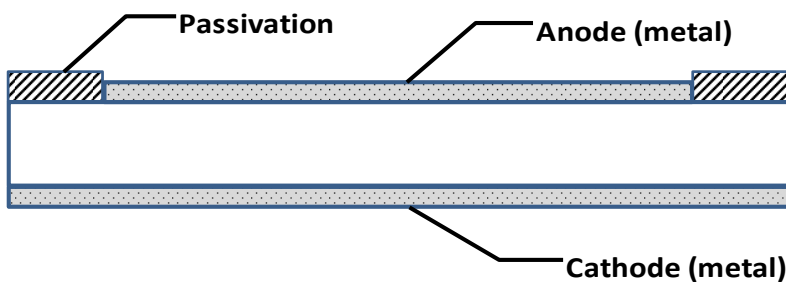
\*Please Contact  
IXYS Chip Sales

## Mechanical Parameters

Area active		8,62 mm <sup>2</sup>	<b>Features</b> <ul style="list-style-type: none"> <li>fast, soft SONIC diode</li> <li>low forward voltage drop</li> <li>small temp. Coefficient</li> <li>low switching losses</li> <li>high ruggedness</li> <li>anode top</li> <li>Tvj<sub>m</sub> = 175°C</li> </ul> <b>Applications</b> <ul style="list-style-type: none"> <li>antiparallel diode for high frequency switching</li> <li>antisaturation diode</li> <li>snubber diode</li> <li>freewheeling diode in converters &amp; motor control</li> <li>rectifiers in switch mode power supplies (SMPS)</li> <li>inductive heating &amp; melting</li> <li>uninterruptible power supplies (UPS)</li> <li>ultrasonic cleaners &amp; welders</li> </ul>
Area total		19,80 mm <sup>2</sup>	
Wafer size Ø		150 mm	
Thickness		290 µm	
Die Per Wafer		756	
Material		Si	
Passivation front side		Polyimide	
Metalisation front side		Al	
Metalisation back side		Al/Ti/NiV/Ag	
Recom. wire bonds (Al)		3	
*= stitch bonds		380 µm	
Reject ink dot size		0.4 - 1.0 mm	
Recom. solder temp.		<300 °C	
Recom. Storage environment		<6 month	
Storage temp.		<2 year	
		<2 year	
		-40...40 °C	
	Anode	bondable:	
		solderable (only):	
		Number	
		Ø	
		Ø	
		in org. container, in dry nitrogen	
		in org. container, in dry nitrogen	
		in org. container, in dry nitrogen	

## Dimensions

A	B	C	D
[mm]	[mm]	[mm]	[mm]
4,45	4,45	2,89	2,89



## Electrical Parameters

Symbol	Conditions	Ratings			Units
		min	typ	max	
$I_R$	$V = V_{RRM}$	$T_{vj} = 25\text{ }^\circ\text{C}$		50	$\mu\text{A}$
		$T_{vj} = 150\text{ }^\circ\text{C}$	1		$\text{mA}$
$V_F$	$I_f = 20\text{ A}$	$T_{vj} = 25\text{ }^\circ\text{C}$	1,90	2,20	V
		$T_{vj} = 150\text{ }^\circ\text{C}$	2,00		V
$V_{FO}$	For power loss calculations only			1,4	V
$r_F$		$T_{vj} = 175\text{ }^\circ\text{C}$		42,5	$\text{m}\Omega$
$T_{VJ}$				-55	$^\circ\text{C}$
$I_{F(AV)}$ *	DC	$T_c = 80\text{ }^\circ\text{C}$	23		A
$I_{FSM}$ *	$V = 0\text{V}$	$T_{vj} = 45\text{ }^\circ\text{C}$		150	A
$R_{thJC}$ *	DC current			1,7	$\text{K/W}$
$Q_{rr}$					$\mu\text{C}$
$I_{RM}$	$V = 900\text{ V}$	$T_{vj} = 25\text{ }^\circ\text{C}$			A
		$dI_f/dt = 500\text{ A}/\mu\text{s}$			
$t_{rr}$	$I_f = 20\text{ A}$				ns
$E_{rec}$					mJ
$Q_{rr}$			7		$\mu\text{C}$
$I_{RM}$	$V = 900\text{ V}$	$T_{vj} = 150\text{ }^\circ\text{C}$	32		A
		$dI_f/dt = 500\text{ A}/\mu\text{s}$	200		ns
$t_{rr}$	$I_f = 20\text{ A}$				ns
$E_{rec}$			3,5		mJ

 \* Data according to assembled 380 $\mu\text{m}$  DCB

Data according to IEC 60747

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- 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.