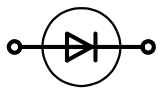
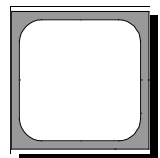


Type	V <sub>RRM</sub>	I <sub>F(AV)</sub> [A]	Chip Size [mm] x [mm]	Package Options
DWPJ 106-16 AL	1600	180	10.3 10.3	sawn on foil <input checked="" type="checkbox"/> in wafer pack <input checked="" type="checkbox"/>

## Mechanical Parameters

Area active	88	mm <sup>2</sup>
Area total	106.09	mm <sup>2</sup>
Wafer size Ø	150	mm
Thickness	265	µm
Material	Si	
Max. possible chips per wafer	tbd	
Passivation front side	Glassivation	
Metallization top side	bondable: Al	
Metallization backside	solderable (only): Al / Ti / Ni / Ag *	
Recom. wire bonds (Al)	Number 10	
	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 months
unsawn wafer	in org. container, in dry nitrogen	< 2 years
in wafer pack	in org. container, in dry nitrogen	< 2 years
Recom. storage temperature	-40 ... 40	°C

### Features

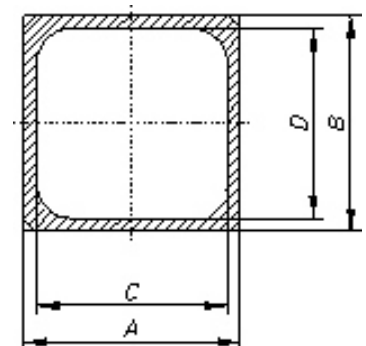
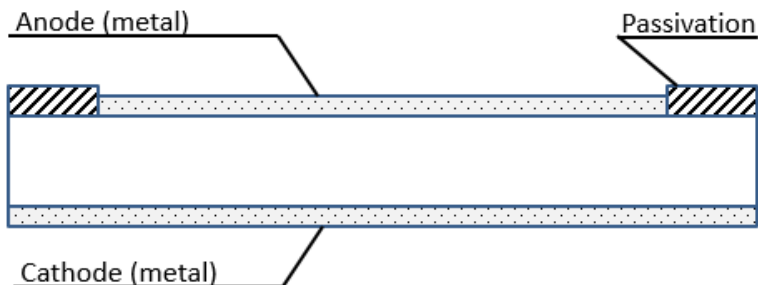
- advanced planar technology
- anode top
- glassivation
- soft recovery rectifier diode
- high commutation robustness

### Applications

- DC power supplies
- field supply for DC motors
- battery DC power supplies
- power rectifiers
- input rectifier

## Dimensions

A	B	C	D
[mm]	[mm]	[mm]	[mm]
10.3	10.3	9.40	9.40



## Electrical parameters

Symbol	Conditions	Ratings		
		min.	typ.	max.
$V_{RRM}$	$T_{VJ} = 25^{\circ}\text{C}$	1600		V
$I_R$	$V_R = V_{RRM}$ $T_{VJ} = 25^{\circ}\text{C}$			300 $\mu\text{A}$
	$V_R = 0.8 \cdot V_{RRM}$ $T_{VJ} = 150^{\circ}\text{C}$			1 mA
$V_F$	$I_F = 250 \text{ A}$ $T_{VJ} = 25^{\circ}\text{C}$		1.10	V
	$T_{VJ} = 150^{\circ}\text{C}$		1.04	V
$V_{F0, \max}$	Maximum forward voltage range			0.90 V
$r_{F, \max}$	$T_{VJ} = 25^{\circ}\text{C}$ $0.5 \cdot I_{F(AV)} < I_F < 2 \cdot I_{F(AV)}$			1 m $\Omega$
$di/dt$	$T_{VJ} = 25^{\circ}\text{C}$ $V_{DC} = 600\text{V}$ $I_F = 2 \cdot I_{F(AV)}$ $L_{S, \max} = 1.3 \mu\text{H}$ $V_{R, \max} = 850 \text{ V}$			tbd A/ $\mu\text{s}$
	$T_{VJ} = 150^{\circ}\text{C}$ $V_{DC} = 600\text{V}$ $I_F = 2 \cdot I_{F(AV)}$ $L_{S, \max} = 1.3 \mu\text{H}$ $V_{R, \max} = 850 \text{ V}$			tbd A/ $\mu\text{s}$
$T_{VJ}$		-40		150 $^{\circ}\text{C}$
$I_{F(AV)}$ *	$T_C = 100^{\circ}\text{C}$ 180° rect. $T_{VJ} = 150^{\circ}\text{C}$		250	A
$I_{FSM}$ *	$T_{VJ} = 25^{\circ}\text{C}$ $t = 10 \text{ ms}$ (50) Hz, sine			2600 A
	$V_R = 0 \text{ V}$ $t = 8.3 \text{ ms}$ (60) Hz, sine			2400 A
	$T_{VJ} = 150^{\circ}\text{C}$ $t = 10 \text{ ms}$ (50) Hz, sine			2000 A
	$V_R = 0 \text{ V}$ $t = 8.3 \text{ ms}$ (60) Hz, sine			1900 A
$I^2t$ *	$T_{VJ} = 25^{\circ}\text{C}$ $t = 10 \text{ ms}$ (50) Hz, sine			33800 A <sup>2</sup> s
	$V_R = 0 \text{ V}$ $t = 8.3 \text{ ms}$ (60) Hz, sine			24000 A <sup>2</sup> s
	$T_{VJ} = 150^{\circ}\text{C}$ $t = 10 \text{ ms}$ (50) Hz, sine			20000 A <sup>2</sup> s
	$V_R = 0 \text{ V}$ $t = 8.3 \text{ ms}$ (60) Hz, sine			15040 A <sup>2</sup> s
$R_{thJC}$ *	DC current			0.22 K/W
* Data according to assembled Chip VHFD (bondable)			Data according to IEC 60747	
$V_{br}$	$T_{VJ} = 25^{\circ}\text{C}$	1740		V
	$T_{VJ} = 150^{\circ}\text{C}$	1800		V
$I_{RSM}$	Avalanche capability			5 mA

## 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 system characteristics when assembled. 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 your responsible sales office.

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.