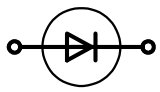
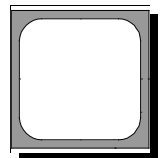


Type	V <sub>RRM</sub>	I <sub>F(AV)</sub> [A]	Chip Size [mm] x [mm]	Package Options
DWPJ 23-16 AL	1600	35	4.80 4.80	sawn on foil <input checked="" type="checkbox"/> in wafer pack <input checked="" type="checkbox"/>

## Mechanical Parameters

Area active	14.44	mm <sup>2</sup>
Area total	23.04	mm <sup>2</sup>
Wafer size Ø	150	mm
Thickness	265	µm
Material	Si	
Max. possible chips per wafer	591	
Passivation front side	Glassivation	
Metallization top side	bondable: Al	
Metallization backside	solderable (only): Al / Ti / Ni / Ag *	
Recom. wire bonds (Al)	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 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

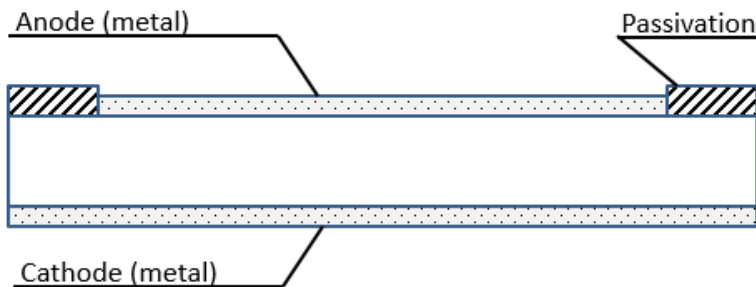
- advanced planar technology
- anode top
- glassivation
- soft recovery rectifier diode
- high commutation robustness

### 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]
4.80	4.80	3.80	3.80



## Electrical parameters

Symbol	Conditions	Ratings		
		min.	typ.	max.
$V_{RRM}$	$T_{VJ} = 25^{\circ}\text{C}$	1600		V
$I_R$	$V_R = V_{RRM}$ $T_{VJ} = 25^{\circ}\text{C}$			150 $\mu\text{A}$
	$V_R = 0.8 \cdot V_{RRM}$ $T_{VJ} = 150^{\circ}\text{C}$			1 mA
$V_F$	$I_F = 35 \text{ A}$ $T_{VJ} = 25^{\circ}\text{C}$		1.05	V
	$T_{VJ} = 150^{\circ}\text{C}$		0.97	V
$V_{F0, \max}$	Maximum forward voltage range			1.00 V
$r_{F, \max}$	$T_{VJ} = 25^{\circ}\text{C}$ $0.5 \cdot I_{F(AV)} < I_F < 2 \cdot I_{F(AV)}$			3.6 m $\Omega$
$di/dt$	$T_{VJ} = 25^{\circ}\text{C}$ $V_{DC} = 600\text{V}$ $I_F = 2 \cdot I_{F(AV)}$ $L_{S, \max} = 1.3 \mu\text{H}$ $V_{R, \max} = 850 \text{ V}$			200 A/ $\mu\text{s}$
	$T_{VJ} = 150^{\circ}\text{C}$ $V_{DC} = 600\text{V}$ $I_F = 2 \cdot I_{F(AV)}$ $L_{S, \max} = 1.3 \mu\text{H}$ $V_{R, \max} = 850 \text{ V}$			200 A/ $\mu\text{s}$
$T_{VJ}$		-40		150 $^{\circ}\text{C}$
$I_{F(AV)}$ *	$T_C = 100^{\circ}\text{C}$ 180° rect. $T_{VJ} = 150^{\circ}\text{C}$		35	A
$I_{FSM}$ *	$T_{VJ} = 25^{\circ}\text{C}$ $t = 10 \text{ ms}$ (50) Hz, sine			520 A
	$V_R = 0 \text{ V}$ $t = 8.3 \text{ ms}$ (60) Hz, sine			480 A
	$T_{VJ} = 150^{\circ}\text{C}$ $t = 10 \text{ ms}$ (50) Hz, sine			420 A
	$V_R = 0 \text{ V}$ $t = 8.3 \text{ ms}$ (60) Hz, sine			400 A
$I^2t$ *	$T_{VJ} = 25^{\circ}\text{C}$ $t = 10 \text{ ms}$ (50) Hz, sine			1350 A <sup>2</sup> s
	$V_R = 0 \text{ V}$ $t = 8.3 \text{ ms}$ (60) Hz, sine			960 A <sup>2</sup> s
	$T_{VJ} = 150^{\circ}\text{C}$ $t = 10 \text{ ms}$ (50) Hz, sine			880 A <sup>2</sup> s
	$V_R = 0 \text{ V}$ $t = 8.3 \text{ ms}$ (60) Hz, sine			670 A <sup>2</sup> s
$R_{thJC}$ *	DC current			0.80 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

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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.