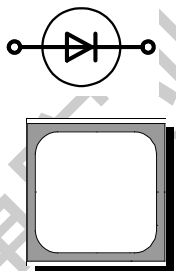


| Type | Ag* Al* | V _{DRM} / V _{RRM} | I _{F(AV)} [A] | Chip Size [mm] x [mm] | Package Options |
|--------|---|-------------------------------------|---------------------------|--------------------------|--|
| DWP 50 | <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> | 1800 | 76 | 7.10 7.10 | sawn on foil <input checked="" type="checkbox"/> unsawn wafer <input checked="" type="checkbox"/> * in waffle pack <input checked="" type="checkbox"/> |

*Frontside options

*Please contact IXYS chip sales



Mechanical Parameters

| | | |
|-------------------------------|--|-----------------|
| Area active | 32.90 | mm ² |
| Area total | 50.41 | mm ² |
| Wafer size Ø | 150 | mm |
| Thickness | 265 | µm |
| Material | Si | |
| Max. possible chips per wafer | 266 | |
| Passivation front side | Glassivation | |
| Metallization top side | solderable: Al / Ti / Ni / Ag * | |
| top side | bondable: Al | |
| Metallization backside | solderable (only): Al / Ti / Ni / Ag * | |
| Recom. wire bonds (Al) | Number 5 | |
| | 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 | -40 ... 40 | °C |

Features

- planar technology
- anode top
- glassivation
- soft recovery rectifier diode

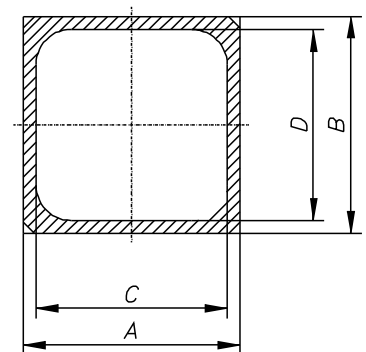
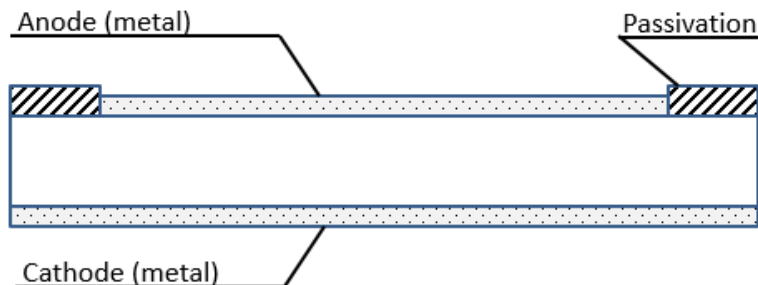
Applications

- DC Power Supplies
- Field Supply for DC motors
- Battery DC Power Supplies
- Power Rectifiers

*Sinterable top/bottom side on request

Dimensions

| A | B | C | D |
|------|------|------|------|
| [mm] | [mm] | [mm] | [mm] |
| 7.10 | 7.10 | 4.8 | 4.8 |



Electrical parameters

| Symbol | Conditions | Ratings | | |
|---------------|---|---------|------|-----------------------|
| | | min. | typ. | max. |
| V_D / V_R | $T_{VJ} = 25^\circ\text{C}$ | 1800 | | V |
| I_R | $V_R = V_{RRM}$ $T_{VJ} = 25^\circ\text{C}$ | | | 50 μA |
| | $V_R = 0.8 \cdot V_{RRM}$ $T_{VJ} = 150^\circ\text{C}$ | | | 2 mA |
| V_F | $I_F = 150 \text{ A}$ $T_{VJ} = 25^\circ\text{C}$ | | | 1.31 V |
| | $T_{VJ} = 125^\circ\text{C}$ | | | 1.31 V |
| V_{FO} | For power-loss calculations only | | | 0.88 V |
| r_F | $T_{VJ} = 150^\circ\text{C}$ | | | 2.9 m Ω |
| T_{VJ} | | -40 | | 150 $^\circ\text{C}$ |
| $I_{F(AV)}$ * | $T_C = 100^\circ\text{C}$ 180° rect. $T_{VJ} = 150^\circ\text{C}$ | | | 76 A |
| I_{FSM} * | $T_{VJ} = 45^\circ\text{C}$ t = 10 ms (50) Hz, sine | | | 1100 A |
| | $V_R = 0 \text{ V}$ t = 8.3 ms (60) Hz, sine | | | 1200 A |
| | $T_{VJ} = 150^\circ\text{C}$ t = 10 ms (50) Hz, sine | | | tbd A |
| | $V_R = 0 \text{ V}$ t = 8.3 ms (60) Hz, sine | | | tbd A |
| I^2t * | $T_{VJ} = 45^\circ\text{C}$ t = 10 ms (50) Hz, sine | | | 6050 A s ² |
| | $V_R = 0 \text{ V}$ t = 8.3 ms (60) Hz, sine | | | 6000 A s |
| | $T_{VJ} = 150^\circ\text{C}$ t = 10 ms (50) Hz, sine | | | tbd A s ² |
| | $V_R = 0 \text{ V}$ t = 8.3 ms (60) Hz, sine | | | tbd A s ² |
| R_{thJC} * | DC current | | | 0.50 K/W |

* Data according to assembled Chip

Data according to IEC 60747

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.