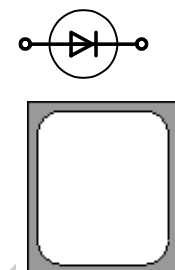


| Type | Ag* Al* | V _{RRM} [V] | I _{F(AV)} [A] | Chip Size [mm] x [mm] | Package |
|---------|--|-------------------------|---------------------------|--------------------------|--|
| DMHP 43 | <input type="checkbox"/> Ag <input checked="" type="checkbox"/> Al | 650 | 100 | 8.65 4.95 | sawn on foil <input checked="" type="checkbox"/> unsawn wafer <input checked="" type="checkbox"/> * in waffle pack <input checked="" type="checkbox"/> |

*Frontside options

*Please contact IXYS chip sales

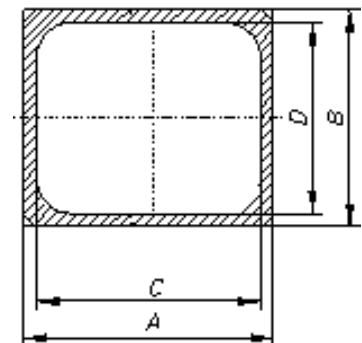
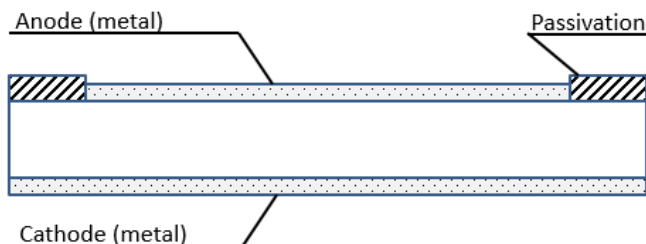


Mechanical Parameters

| | | | |
|----------------------------|--------------------------------------|---|--|
| Area active | 31.60 mm ² | Features <ul style="list-style-type: none"> fast, soft SONIC diode low forward voltage drop small temperature coefficient low switching losses high ruggedness anode top T_{vjm} = 175°C | |
| Area total | 42.82 mm ² | | |
| Wafer size Ø | 150 mm | | |
| Thickness | 290 µm | | |
| Material | Si | | |
| Passivation front side | Polyimide | | |
| Metallization top side | bondable: Al | | |
| Metallization backside | solderable (only): Al / Ti / Ni / Ag | | |
| Recom. wire bonds (Al) | Anode Number 8 | | |
| * = stitch bonds | Ø 380 µm | | |
| Reject Ink Dot Size | Ø 0.4-1.0 mm | Applications <ul style="list-style-type: none"> antiparallel diode for high frequency switching devices antisaturation diode snubber diode free wheeling diode in converters and motor control circuits rectifiers in switch mode power supplies (SMPS) inductive heating and melting uninterruptible power supplies (UPS) ultrasonic cleaners and welders | |
| Recom. soldering temp. | < 300 °C | | |
| 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 _{stg} | -40 ... 40 °C | | |

Dimensions

| A | B | C | D |
|------|------|------|------|
| [mm] | [mm] | [mm] | [mm] |
| 8.65 | 4.95 | 7.59 | 3.89 |



Electrical parameters

| Symbol | Conditions | Ratings | | | |
|---------------|---|---------|------|------|------------------|
| | | min. | typ. | max. | |
| I_R | $V = V_{RRM}$ $T_{VJ} = 25^\circ\text{C}$ $T_{VJ} = 150^\circ\text{C}$ | | 20 | 200 | μA |
| | | | 1 | | mA |
| V_F | $I_F = 100\text{ A}$ $T_{VJ} = 25^\circ\text{C}$ $T_{VJ} = 150^\circ\text{C}$ | | 2.50 | 2.80 | V |
| | | | 2.55 | | V |
| V_{F0} | For power-loss calculations only | | | 1.15 | V |
| r_F | $T_{VJ} = 175^\circ\text{C}$ | | | 9 | $\text{m}\Omega$ |
| T_{VJ} | | -55 | | 175 | $^\circ\text{C}$ |
| $I_{F(AV)}$ * | $T_C = 80^\circ\text{C}$ DC | | 85 | | A |
| I_{FSM} * | $T_{VJ} = 45^\circ\text{C}$ $V = 0\text{ V}$ | | | 500 | A |
| R_{thJC} * | DC current | | | 0.6 | K/W |
| Q_n | $V = 300\text{ V};$ $I_F = 100\text{ A}$ $-di_F/dt = 1500\text{ A}/\mu\text{s}$ $T_{VJ} = 25^\circ\text{C}$ | | 5 | | μC |
| I_{RM} | | | 80 | | A |
| t_n | | | 100 | | ns |
| E_{rec} | | | 1.6 | | mJ |
| Q_n | | | 9.5 | | μC |
| I_{RM} | $V = 300\text{ V};$ $I_F = 100\text{ A}$ $-di_F/dt = 1500\text{ A}/\mu\text{s}$ $T_{VJ} = 150^\circ\text{C}$ | | 95 | | A |
| | | | 150 | | ns |
| | | | 2.5 | | mJ |
| | | | | | |

* Data according to assembled 380 μm DCB

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.