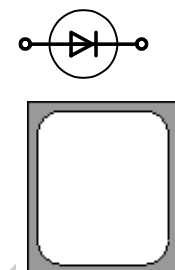


| Type | Ag* Al* | V _{RRM} [V] | I _{F(AV)} [A] | Chip Size [mm] x [mm] | Package |
|----------|--|-------------------------|---------------------------|--------------------------|--|
| DMHP 107 | <input type="checkbox"/> Ag <input checked="" type="checkbox"/> Al | 650 | 250 | 11.40 9.40 | sawn on foil <input checked="" type="checkbox"/> unsawn wafer <input checked="" type="checkbox"/> * in waffle pack <input checked="" type="checkbox"/> |

*Frontside options

*Please contact IXYS chip sales

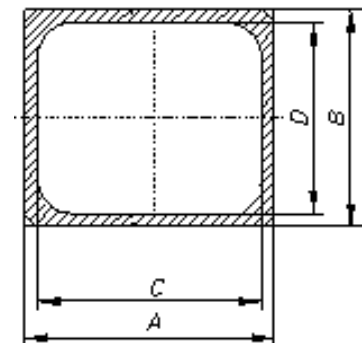
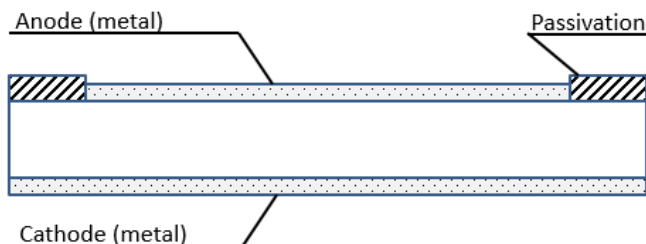


Mechanical Parameters

| | | | |
|----------------------------|--------------------------------------|---|--|
| Area active | 87.40 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 • Tvjm = 175°C | |
| Area total | 107.16 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 27 | | |
| * = 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] |
| 11.40 | 9.40 | 10.34 | 8.34 |



Electrical parameters

| Symbol | Conditions | Ratings | | | |
|---------------|--|---|------|------|------------------|
| | | min. | typ. | max. | |
| I_R | $V = V_{RRM}$ $T_{VJ} = 25^\circ\text{C}$ $T_{VJ} = 150^\circ\text{C}$ | | 60 | 600 | μA |
| | | | 3 | | mA |
| V_F | $I_F = 250\text{ A}$ $T_{VJ} = 25^\circ\text{C}$ $T_{VJ} = 150^\circ\text{C}$ | | 2.50 | 2.80 | V |
| | | | 2.55 | | V |
| V_{F0} | For power-loss calculations only | | | 1.21 | V |
| r_F | $T_{VJ} = 175^\circ\text{C}$ | | | 3 | $\text{m}\Omega$ |
| T_{VJ} | | -55 | | 175 | $^\circ\text{C}$ |
| $I_{F(AV)}$ * | $T_C = 80^\circ\text{C}$ DC | | 190 | | A |
| I_{FSM} * | $T_{VJ} = 45^\circ\text{C}$ $V = 0\text{ V}$ | | | 1400 | A |
| R_{thJC} * | DC current | | | 0.24 | K/W |
| Q_n | $V = 300\text{ V};$ $I_F = 250\text{ A}$ $-di_F/dt = 2500\text{ A}/\mu\text{s}$ $T_{VJ} = 25^\circ\text{C}$ | | 7 | | μC |
| I_{RM} | | | 125 | | A |
| t_n | | | 100 | | ns |
| E_{rec} | | | 2 | | mJ |
| Q_n | | $V = 300\text{ V};$ $I_F = 250\text{ A}$ $-di_F/dt = 2500\text{ A}/\mu\text{s}$ $T_{VJ} = 150^\circ\text{C}$ | | 16 | |
| I_{RM} | | | 180 | | A |
| t_n | | | 150 | | ns |
| E_{rec} | | | 4.4 | | mJ |

* Data according to assembled 380 μm DCB

Data according to IEC 60747

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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.