# SKR Tabl. 4,2 Qu



## SEMICELL DIODE

**SKR Tabl. 4,2 Qu**

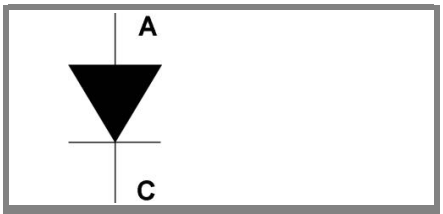
**$I_{F(DC)}$ = 35 A**
**$V_{RRM}$ = 1600 V**
**Size: 4,2 mm X 4,2 mm**
**Package: tray**

## Features

- high current density due to mesa technology
- high surge current
- compatible to thick wire bonding
- compatible to all standard solder processes

## Typical Applications

- uncontrolled rectifier bridges




SKR

### Absolute Maximum Ratings

| Symbol | Conditions | Values | Units |
|---|---|---|---|
| $V_{RRM}$ | $T_{vj}$ = 25 °C, $I_R$ = 0,05 mA | 1600 | V |
| $I_{F(AV)}$ | $T_h$ = 80 °C, $T_{vjmax}$ = 150 °C | 28 | A |
| $I^2t$ | $T_{vjmax}$ = 150 °C, 10 ms, half sine wave | 360 | $A^2s$ |
| $I_{FSM}$ | $T_{vj}$ = 25 °C, 10 ms, half sine wave | 370 | A |
| | $T_{vjmax}$ = 150 °C, 10 ms, half sine wave | 270 | A |
| $T_{vjmax}$ | | + 150 | °C |

### Electrical Characteristics

| Symbol | Conditions | min. | typ. | max. | Units |
|---|---|---|---|---|---|
| $I_R$ | $T_{vj}$ = 25 °C, $V_{RRM}$ | | | 0,05 | mA |
| | $T_{vj}$ = 145 °C, $V_{RRM}$ | | | 1,1 | mA |
| $V_F$ | $T_{vj}$ = 25 °C, $I_F$ = 15 A | | 1 | 1,21 | V |
| | $T_{vj}$ = 125 °C, $I_F$ = 15 A | | 0,9 | 1,1 | V |
| $V_{(TO)}$ | $T_{vj}$ = 125 °C, | | | 0,83 | V |
| $r_T$ | $T_{vj}$ = 125 °C, | | | 12,2 | mΩ |
| $t_{rr}$ | $T_{vj}$ = 25 °C, ± 1 A | | 20 | | µs |

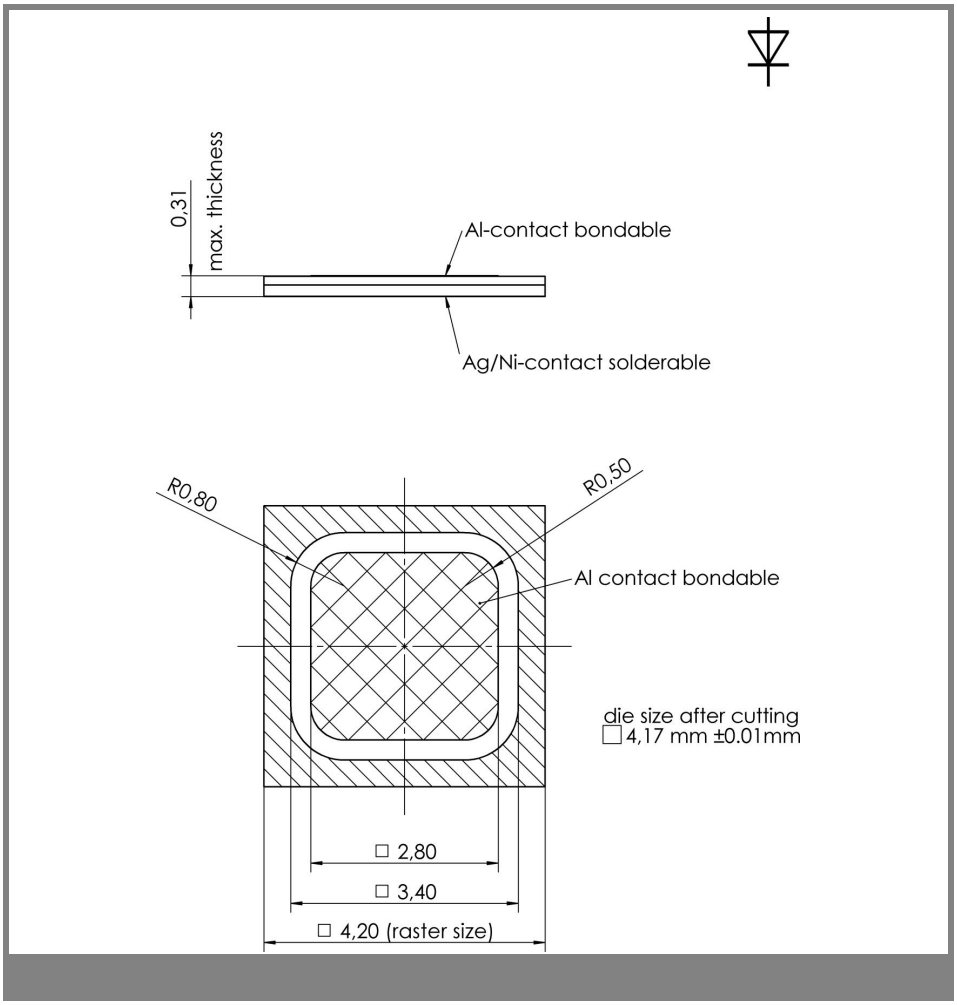
### Thermal Characteristics

| Symbol | Conditions | min. | typ. | max. | Units |
|---|---|---|---|---|---|
| $T_{vj}$ | | - 40 | | + 150 | °C |
| $T_{stg}$ | | - 40 | | + 150 | °C |
| $T_{solder}$ | 10 min | | | + 250 | °C |
| $T_{solder}$ | 5 min | | | + 320 | °C |
| $R_{th(j-h)}$ | soldered on 0,38 mm DCB, reference point on copper heatsink close to the chip. | | 1,5 | | K / W |

### Mechanical Characteristics

| Parameter | | Units |
|---|---|---|
| raster size | 4,2 x 4,2 | mm |
| Area total | 17,6 | $mm^2$ |
| Chips / Tray | 225 | pcs |
| Anode metallisation | bondable (Al) / solderable (Ag / Ni) | |
| Cathode metallisation | solderable (Ag / Ni) | |
| wire bond | Al, diameter ≤ 500 µm | |

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