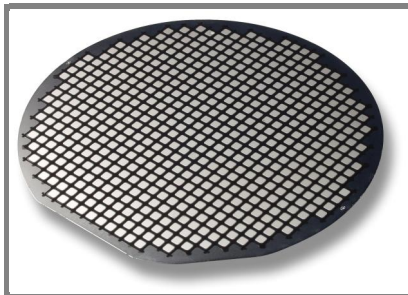


# SKR Tabl. 4,2 Qu



## SEMICELL DIODE

### SKR Tabl. 4,2 Qu

$I_{F(DC)} = 35 \text{ A}$

$V_{RRM} = 1600 \text{ V}$

Size: 4,2 mm X 4,2 mm

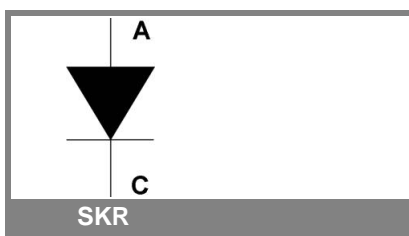
Package: tray

### 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



### Absolute Maximum Ratings

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

### Electrical Characteristics

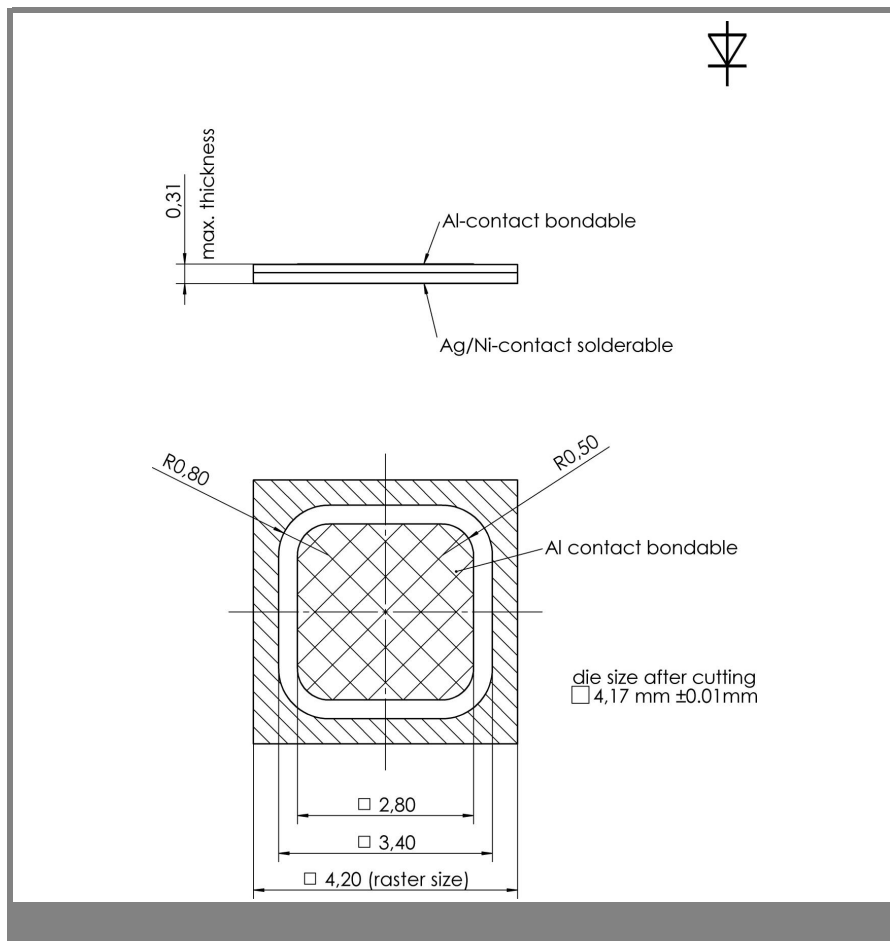
Symbol	Conditions	min.	typ.	max.	Units
$I_R$	$T_{vj} = 25 \text{ }^\circ\text{C}$ , $V_{RRM}$			0,05	mA
	$T_{vj} = 145 \text{ }^\circ\text{C}$ , $V_{RRM}$			1,1	mA
$V_F$	$T_{vj} = 25 \text{ }^\circ\text{C}$ , $I_F = 15 \text{ A}$		1	1,21	V
	$T_{vj} = 125 \text{ }^\circ\text{C}$ , $I_F = 15 \text{ A}$		0,9	1,1	V
$V_{(TO)}$	$T_{vj} = 125 \text{ }^\circ\text{C}$ ,			0,83	V
$r_T$	$T_{vj} = 125 \text{ }^\circ\text{C}$ ,			12,2	m $\Omega$
$t_{rr}$	$T_{vj} = 25 \text{ }^\circ\text{C}$ , $\pm 1 \text{ A}$		20		$\mu\text{s}$

### Thermal Characteristics

Symbol	Conditions	min.	typ.	max.	Units
$T_{vj}$		- 40		+ 150	$^\circ\text{C}$
$T_{stg}$		- 40		+ 150	$^\circ\text{C}$
$T_{solder}$	10 min			+ 250	$^\circ\text{C}$
$T_{solder}$	5 min			+ 320	$^\circ\text{C}$
$R_{th(j-h)}$	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 <sup>2</sup>
Chips / Tray	225 pcs
Anode metallisation	bondable (Al) / solderable (Ag / Ni)
Cathode metallisation	solderable (Ag / Ni)
wire bond	Al, diameter $\leq 500 \text{ } \mu\text{m}$



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