

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

Electrical Characteristics

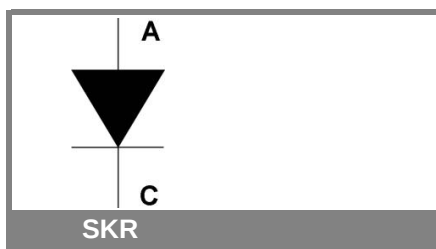
Symbol	Conditions	min.	typ.	max.	Units
I_R	$T_{vj} = 25 \text{ °C}$, V_{RRM}			0,05	mA
	$T_{vj} = 145 \text{ °C}$, V_{RRM}			1,1	mA
V_F	$T_{vj} = 25 \text{ °C}$, $I_F = 15 \text{ A}$		1	1,21	V
	$T_{vj} = 125 \text{ °C}$, $I_F = 15 \text{ A}$		0,9	1,1	V
$V_{(TO)}$	$T_{vj} = 125 \text{ °C}$,			0,83	V
r_T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

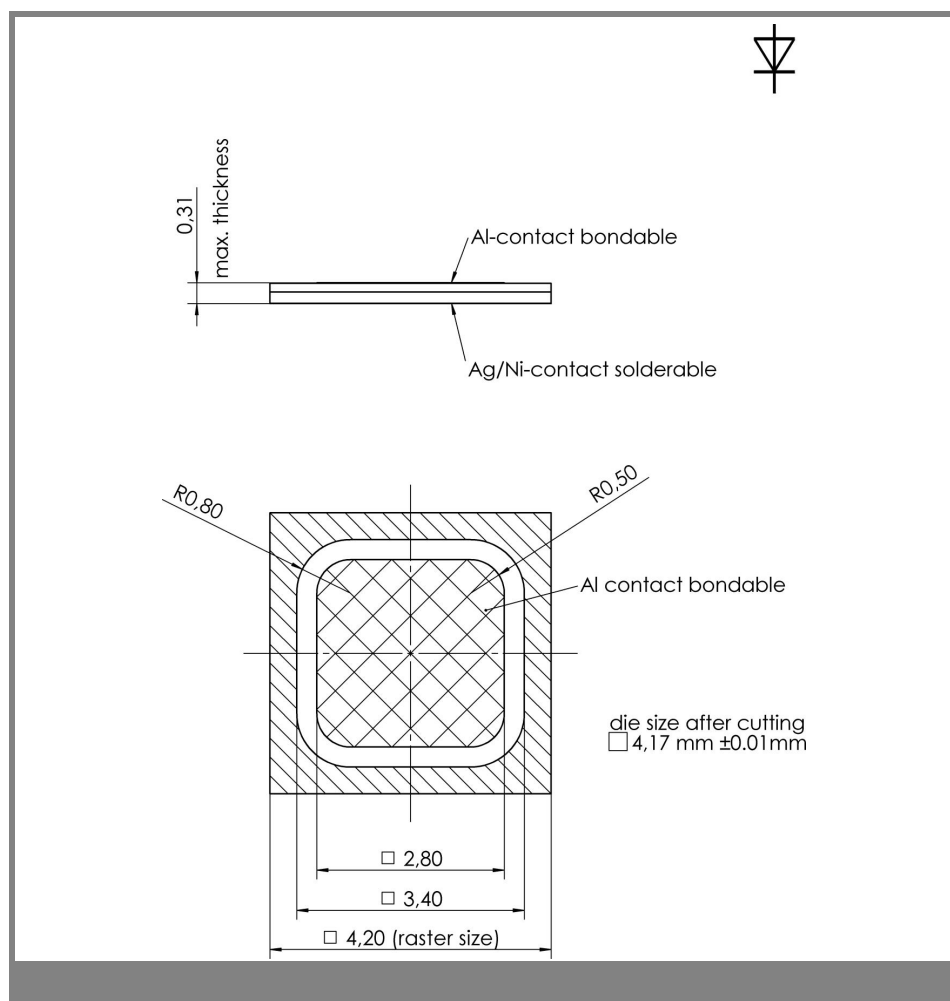
Thermal Characteristics

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





This technical information specifies semiconductor devices. No warranty or guarantee expressed or implied is made regarding delivery, performance or suitability.