

SKR 7,0 Qu bond



DIODE

$$I_{F(DC)} = 75 \text{ A}$$

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

Size: 7,0 mm x 7,0 mm

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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	Unit
V_{RRM}	$T_j = 25 \text{ }^\circ\text{C}$, $I_R = 0.05 \text{ mA}$	1600	V
$I_{F(AV)}$	$T_s = 80 \text{ }^\circ\text{C}$, $T_j = 150 \text{ }^\circ\text{C}$	60	A
I^2t	$T_j = 150 \text{ }^\circ\text{C}$, 10 ms, sin 180°	3961	A ² s
I_{FSM}	10 ms	$T_j = 25 \text{ }^\circ\text{C}$	1000
	sin 180°	$T_j = 150 \text{ }^\circ\text{C}$	890
T_{jmax}		150	°C

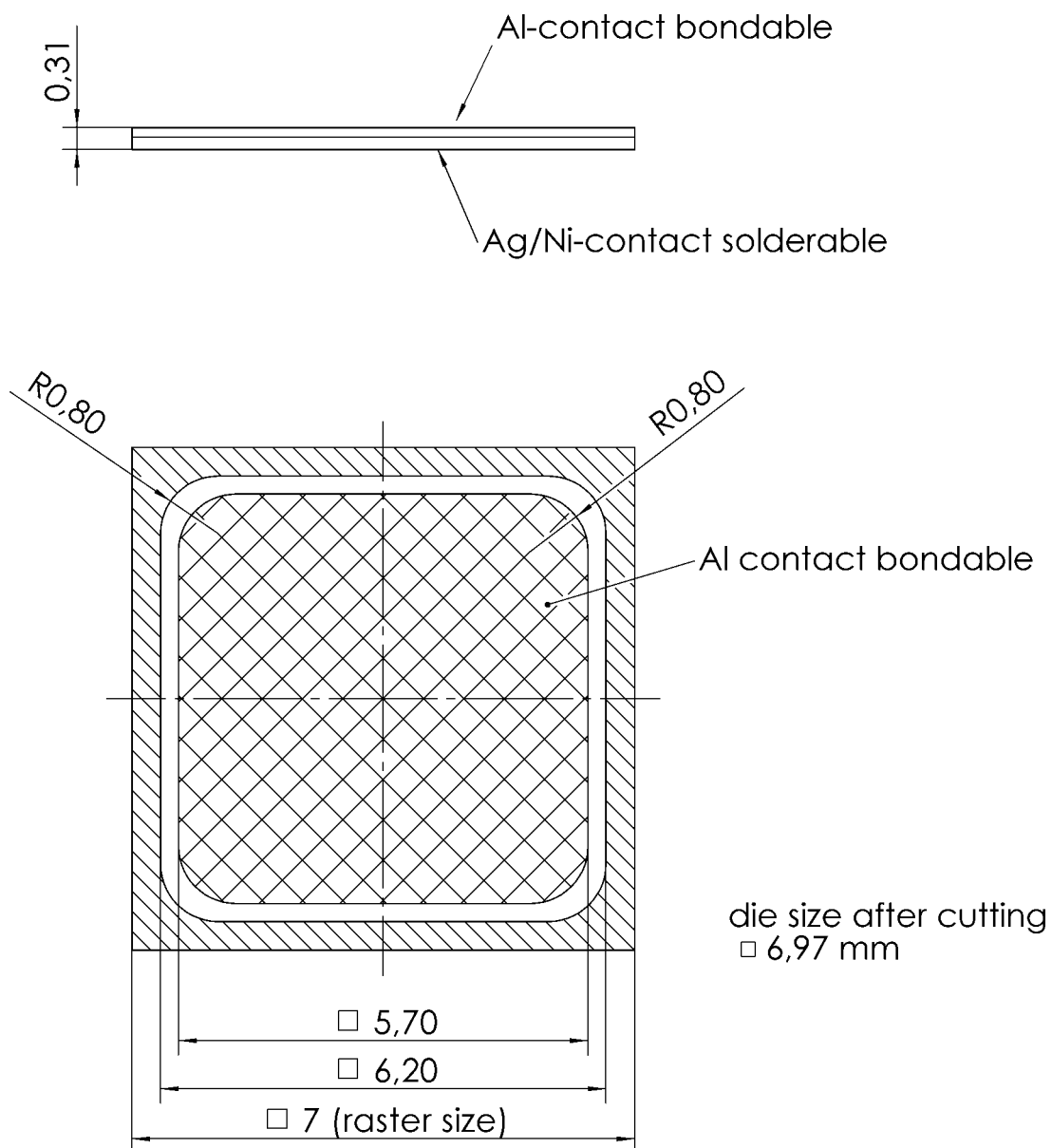
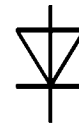
Electrical Characteristics					
Symbol	Conditions	min.	typ.	max.	Unit
I_R	$T_j = 25 \text{ }^\circ\text{C}$, V_{RRM}			0.05	mA
	$T_j = 145 \text{ }^\circ\text{C}$, V_{RRM}			1.1	mA
V_F	$T_j = 25 \text{ }^\circ\text{C}$, $I_F = 45 \text{ A}$		1	1.21	V
	$T_j = 125 \text{ }^\circ\text{C}$, $I_F = 45 \text{ A}$		0.9	1.1	V
$V_{(TO)}$	$T_j = 125 \text{ }^\circ\text{C}$			0.83	V
r_T	$T_j = 125 \text{ }^\circ\text{C}$			3.7	mΩ
t_{rr}	$T_j = 25 \text{ }^\circ\text{C}$, ± 1 A		23		μs

Thermal Characteristics					
Symbol	Conditions	min.	typ.	max.	Unit
T_j		-40		150	°C
T_{stg}		-40		150	°C
T_{solder}	10 min.			250	°C
T_{solder}	5 min.			320	°C
$R_{th(j-s)}$	soldered on 0,38 mm DCB, reference point on copper heatsink close to the chip		0.8		K/W

Mechanical Characteristics			
Symbol	Conditions	Values	Unit
Raster size		7,0 x 7,0	mm
Area total		49	mm ²
Anode		bondable (Al)	
Cathode		solderable (Ag/Ni)	
Wire bond		Al, diameter ≤ 500 μm	
Package		wafer frame	
Chips / Package		294	pcs



SKR



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