

# SKT 10,3 Qu ZG bond.



## THYRISTOR

$$I_{T(DC)} = 125 \text{ A}$$

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

Size: 10,3 mm x 10,3 mm

Central gate

SKT 10,3 Qu ZG bond.

### Features

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

### Typical Applications\*

- controlled rectifier circuits
- solid state relays



SKT

Absolute Maximum Ratings			
Symbol	Conditions	Values	Unit
$V_{RRM}$	$T_j = 25 \text{ }^\circ\text{C}$ , $I_R = 0.2 \text{ mA}$	1600	V
$V_{DRM}$	$T_j = 25 \text{ }^\circ\text{C}$ , $I_D = 0.2 \text{ mA}$	1600	V
$I_{T(AV)}$	$T_c = 80 \text{ }^\circ\text{C}$ , $T_j = 130 \text{ }^\circ\text{C}$	95	A
$I_{TSM}$	$T_j = 130 \text{ }^\circ\text{C}$ , 10 ms, sin 180°	1250	A
$i^2t$	$T_j = 130 \text{ }^\circ\text{C}$ , 10 ms, sin 180°	7810	A <sup>2</sup> s
$T_{jmax}$		130	°C

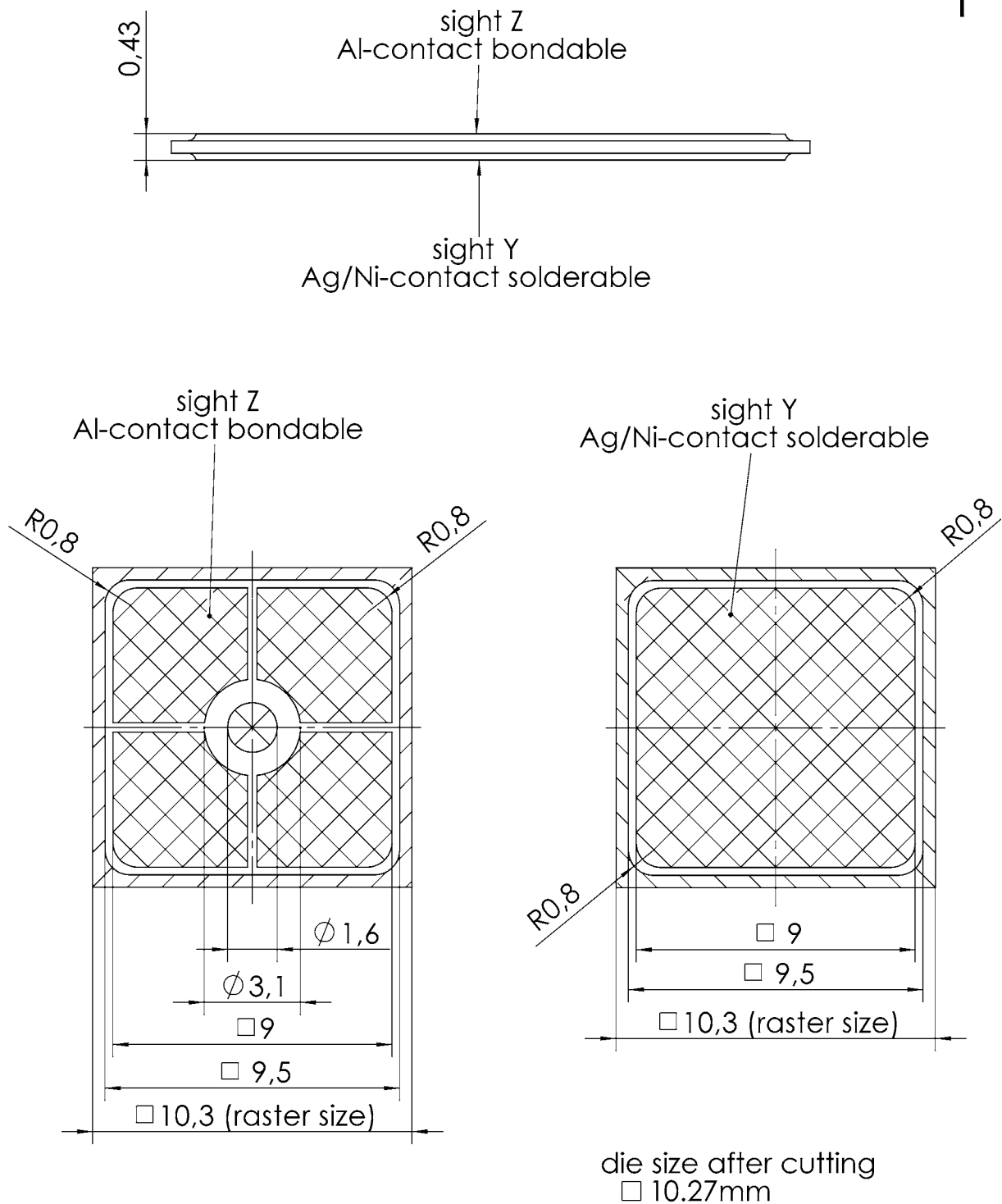
Electrical Characteristics					
Symbol	Conditions	min.	typ.	max.	Unit
$V_T$	$T_j = 130 \text{ }^\circ\text{C}$ , $I_T = 105 \text{ A}$			1.2	V
$V_{T(TO)}$	$T_j = 130 \text{ }^\circ\text{C}$			0.85	V
$r_T$	$T_j = 130 \text{ }^\circ\text{C}$			3.4	mΩ
$I_{GT}$	$T_j = 25 \text{ }^\circ\text{C}$			100	mA
$V_{GT}$	$T_j = 25 \text{ }^\circ\text{C}$			1.98	V
$I_{GD}$	$T_j = 115 \text{ }^\circ\text{C}$	6			mA
$V_{GD}$	$T_j = 130 \text{ }^\circ\text{C}$	0.25			V
$I_H$	$T_j = 25 \text{ }^\circ\text{C}$			220	mA
$I_L$	$T_j = 25 \text{ }^\circ\text{C}$			550	mA

Dynamic Characteristics					
Symbol	Conditions	min.	typ.	max.	Unit
$t_q$	$T_j = 130 \text{ }^\circ\text{C}$		150		μs
$(di/dt)_{cr}$	$T_j = 130 \text{ }^\circ\text{C}$			100	A/μs
$(dv/dt)_{cr}$	$T_j = 130 \text{ }^\circ\text{C}$			1000	V/μs

Thermal Characteristics					
Symbol	Conditions	min.	typ.	max.	Unit
$T_j$		-40		130	°C
$T_{stg}$		-40		130	°C
$T_{solder}$				255	°C
$R_{th(j-c)}$	Semipack 1 assembly		0.31		K/W

Mechanical Characteristics			
Symbol	Conditions	Values	Unit
Raster size		10.3 x 10.3	mm <sup>2</sup>
Area total		106.1	mm <sup>2</sup>
Anode		solderable (Ag/Ni)	
Gate and Cathode		bondable (Al)	
Wire bond		Al, diameter ≤ 500μm	
Package		tray	
Chips / Package		49	pcs

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This is an electrostatic discharge sensitive device (ESDS), international standard IEC 60747-1, Chapter IX

\* The specifications of our components may not be considered as an assurance of component characteristics. Components have to be tested for the respective application. Adjustments may be necessary. The use of SEMIKRON products in life support appliances and systems is subject to prior specification and written approval by SEMIKRON. We therefore strongly recommend prior consultation of our personal.