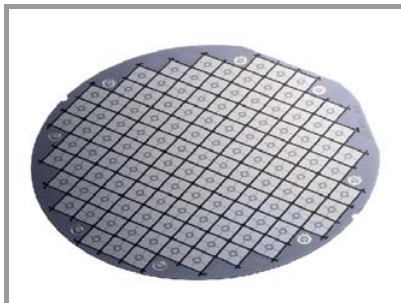


# SKT 10,3 Qu ZG bond.



**THYRISTOR**

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

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

Size: 10,3 mm x 10,3 mm

**Central gate**

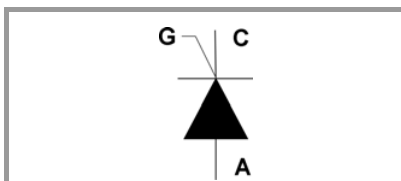
**SKT 10,3 Qu ZG bond.**

### 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
$I_{TSM}$	$T_j = 130 \text{ }^\circ\text{C}, 10 \text{ ms, sin } 180^\circ$	1250	A
$i^2t$	$T_j = 130 \text{ }^\circ\text{C}, 10 \text{ ms, sin } 180^\circ$	7810	$\text{A}^2\text{s}$
$T_{jmax}$		130	$^\circ\text{C}$

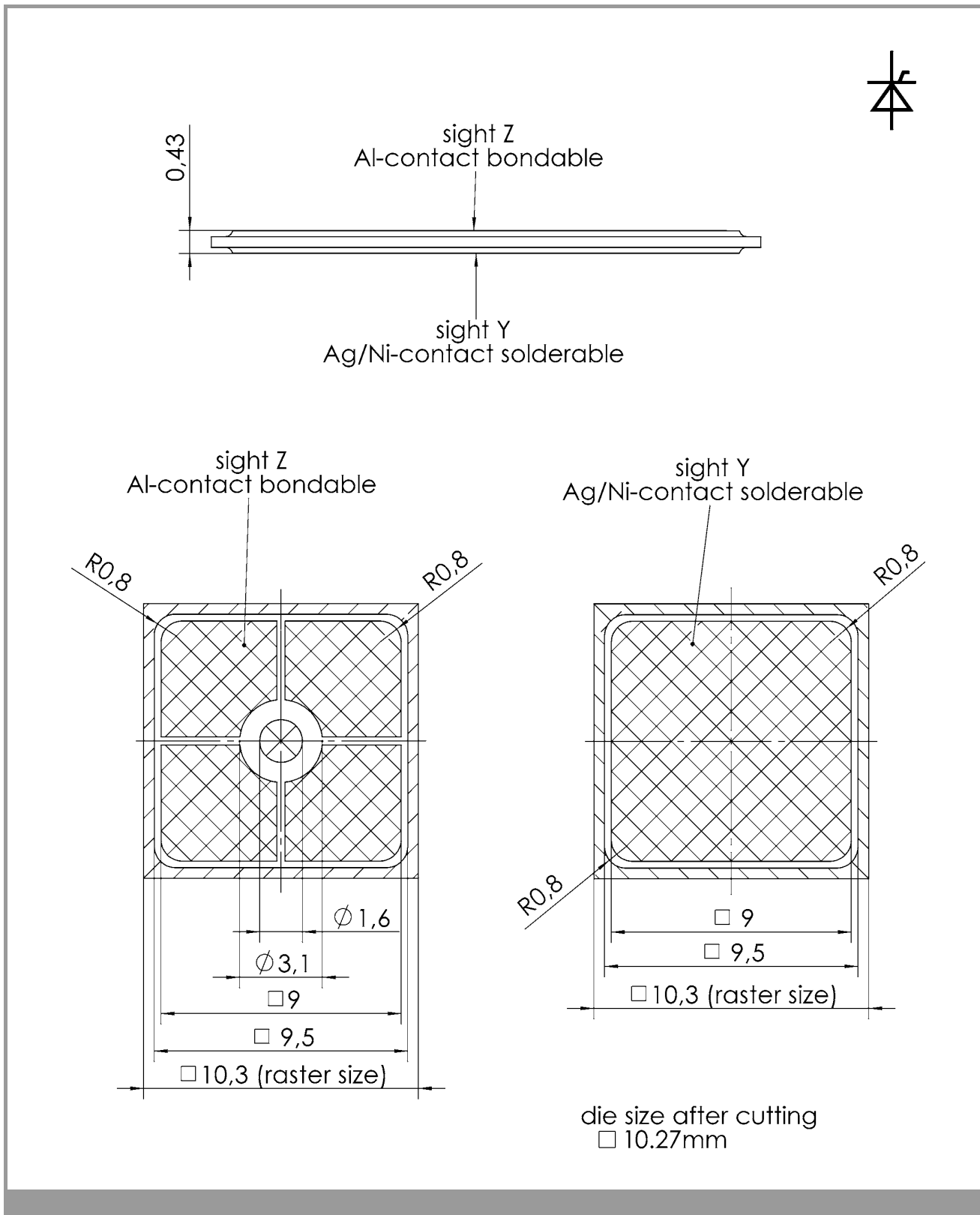
Electrical Characteristics					
Symbol	Conditions	min.	typ.	max.	Unit
$V_T$	$T_j = 130 \text{ }^\circ\text{C}, I_T = 105 \text{ A}$			1.2	V
$V_{T(TO)}$	$T_j = 130 \text{ }^\circ\text{C}$			0.85	V
$r_T$	$T_j = 130 \text{ }^\circ\text{C}$			3.4	$\text{m}\Omega$
$I_{GT}$	$T_j = 25 \text{ }^\circ\text{C}$			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		$\mu\text{s}$
$(di/dt)_{cr}$	$T_j = 130 \text{ }^\circ\text{C}$			100	$\text{A}/\mu\text{s}$
$(dv/dt)_{cr}$	$T_j = 130 \text{ }^\circ\text{C}$			1000	$\text{V}/\mu\text{s}$

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

Mechanical Characteristics			
Symbol	Conditions	Values	Unit
Raster size		10.3 x 10.3	$\text{mm}^2$
Area total		106.1	$\text{mm}^2$
Anode		solderable (Ag/Ni)	
Gate and Cathode		bondable (Al)	
Wire bond		Al, diameter $\leq 500\mu\text{m}$	
Package		tray	
Chips / Package		49	pcs

# SKT 10,3 Qu ZG bond.



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.