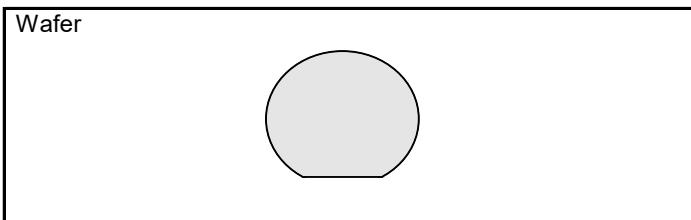


$V_{RM}$	650V
$I_F$ (Nominal)	80A
$V_F$ (Typ.)	1.45V
Max. Possible Chips per Wafer	702pcs

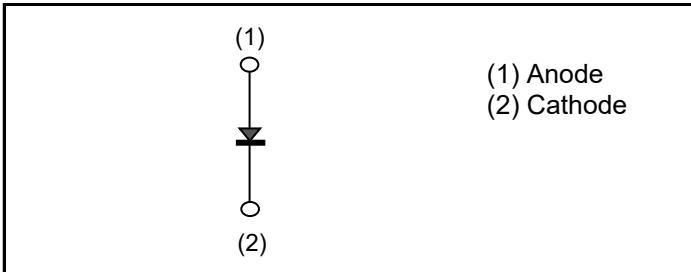
### ●Outline



### ●Features

- 1) Light Punch Through Type
- 2) Low Forward Voltage
- 3) Very Fast & Soft Recovery
- 4) Low Recovery Loss

### ●Inner Circuit



### ●Application

Free Wheeling

### ●Absolute Maximum Ratings (at $T_C = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	$V_{RM}$	650	V
Forward Current	$I_F$ <sup>*1</sup>	<sup>*1)</sup>	A
Pulsed Forward Current	$I_{FP}$ <sup>*2</sup>	320	A
Operating Junction Temperature	$T_j$	-40 to +175	$^\circ\text{C}$

\*1 Depending on thermal properties of assembly

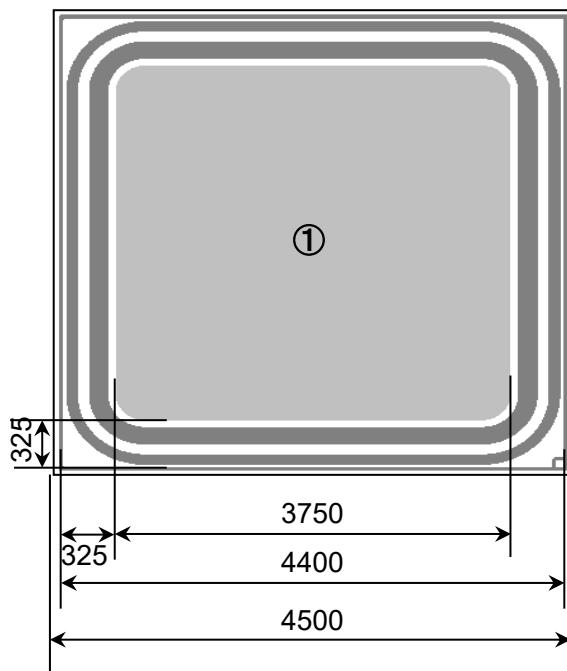
\*2 Pulse width limited by  $T_{j\max}$ .

### ●Electrical Characteristics (at $T_j = 25^\circ\text{C}$ unless otherwise specified, in case of TO-247N package)

Parameter	Symbol	Conditions	Values			Unit
			Min.	Typ.	Max.	
Breakdown Voltage	BV	$I_R = 10\mu\text{A}$	650	-	-	V
Reverse Current	$I_R$	$V_R = 650\text{V}$	-	-	10	$\mu\text{A}$
Forward Voltage	$V_F$ <sup>*3</sup>	$I_F = 80\text{A}$ , $T_j = 25^\circ\text{C}$ $T_j = 175^\circ\text{C}$	-	1.45	1.9	V
			-	1.55	-	

\*3 Design assurance without measurement

## ●Chip Information

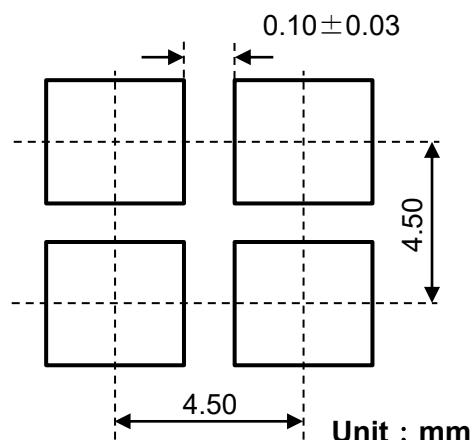


Unit :  $\mu\text{m}$

■ : Pad Area

① : Anode Bonding Pad

Backside : Cathode



Wafer Size	150mm
Wafer Thickness	$0.07\pm0.01\text{mm}$
Chip Size	$4.50\text{mm}\times4.50\text{mm}$
Cut Line Width	$0.10\pm0.03\text{mm}$
Top Side Metallization	AlSiCu:5.0 $\mu\text{m}$
Back Side Metallization	Ti/Ni:0.4 $\mu\text{m}$ /Au:0.05 $\mu\text{m}$
Passivation	Polyimide

## ●Further Electrical Characteristics

Switching characteristics and thermal properties are depending strongly on module design and mounting technology and can therefore not be specified for a bare die.

This chip data sheet refers to the device data sheet

RGTVX6TS65D

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