

$V_{RM}$	650V
$I_F$ (Nominal)	20A
$V_F$ (Typ.)	1.45V
Max. Possible Chips per Wafer	4344pcs

### ●Features

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

### ●Application

Free Wheeling

### ●Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage, $T_j = 25^\circ\text{C}$	$V_{RM}$	650	V
Forward Current	$I_F^{*1}$	*1)	A
Pulsed Forward Current	$I_{FP}^{*2}$	80	A
Operating Junction Temperature	$T_j$	-40 to +175	$^\circ\text{C}$

\*1 Depending on thermal properties of assembly

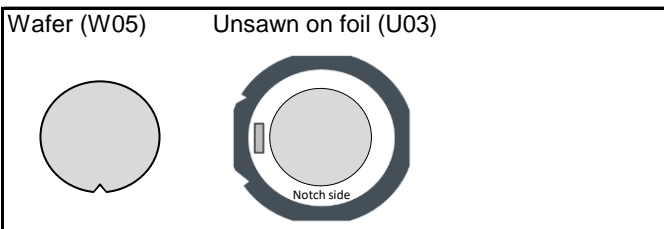
\*2 Pulse width limited by  $T_{jmax}$ .

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

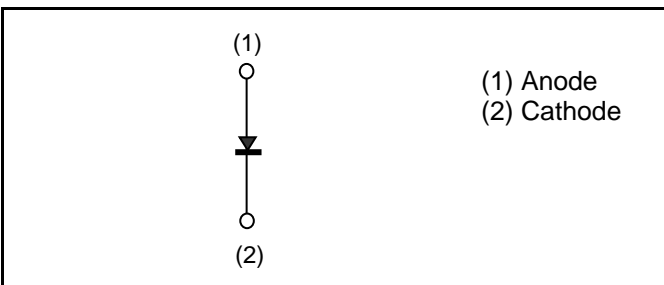
Parameter	Symbol	Conditions	Values			Unit
			Min.	Typ.	Max.	
Breakdown Voltage	BV	$I_R = 10\mu\text{A}$	650	-	-	V
Reverse Current	$I_R$	$V_R = 650\text{V}$	-	-	10	$\mu\text{A}$
Forward Voltage	$V_F^{*3}$	$I_F = 20\text{A}$ , $T_j = 25^\circ\text{C}$	-	1.45	1.9	V
		$T_j = 175^\circ\text{C}$	-	1.55	-	

\*3 Design assurance without measurement

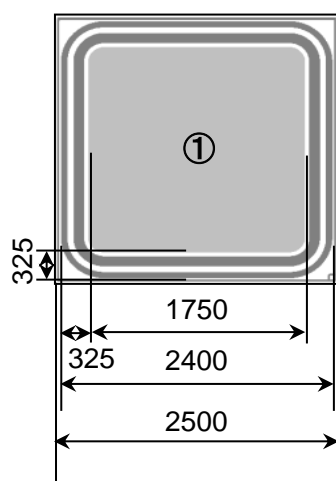
### ●Outline




### ●Inner Circuit



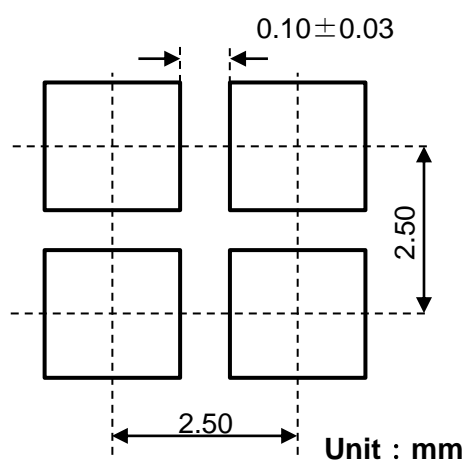
## ●Chip Information

Unit :  $\mu\text{m}$ 

 : Pad Area

① : Anode Bonding Pad

Backside : Cathode



Wafer Size	200mm
Wafer Thickness	0.07±0.01mm
Chip Size	2.50mm×2.50mm
Cut Line Width	0.10±0.03mm
Top Side Metallization	AlSiCu:5.0μm
Back Side Metallization	Ti/Ni:0.4μm/Au:0.05μm
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	RGW80TS65D
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