

V_{RM}	650V
I_F (Nominal)	40A
V_F (Typ.)	1.45V
Max. Possible Chips per Wafer	2328pcs

●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}	160	A
Operating Junction Temperature	T_j	-40 to +175	$^\circ\text{C}$

*1 Depending on thermal properties of assembly

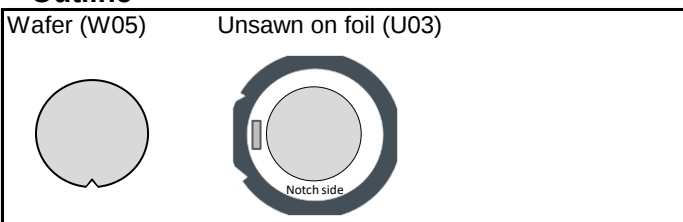
*2 Pulse width limited by T_{jmax} .

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

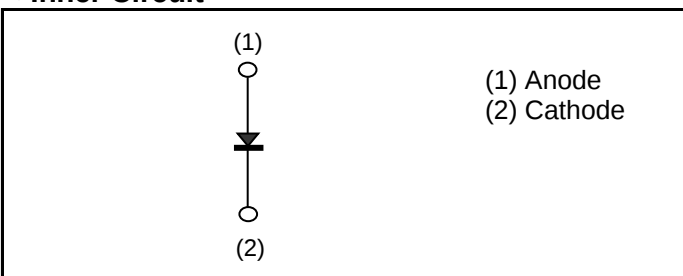
Parameter	Symbol	Conditions	Values			Unit
			Min.	Typ.	Max.	
Breakdown Voltage	BV	$I_R = 10\mu\text{A}$	650	-	-	V
Reverse Current	I_R	$V_R = 650\text{V}$	-	-	10	μA
Forward Voltage	V_F^{*3}	$I_F = 40\text{A}$, $T_j = 25^\circ\text{C}$	-	1.45	1.9	V
		$T_j = 175^\circ\text{C}$	-	1.55	-	

*3 Design assurance without measurement

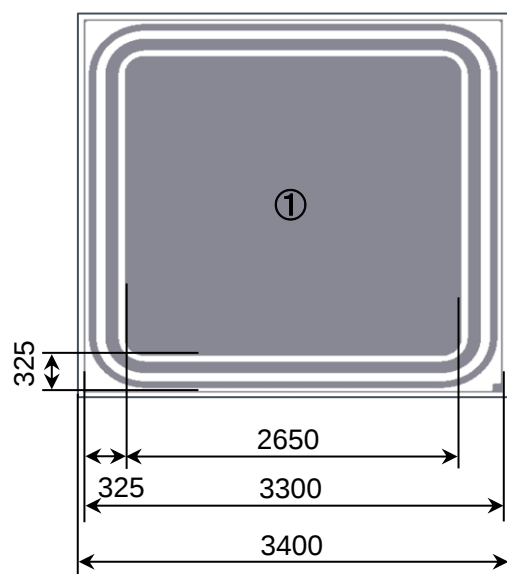
●Outline



●Inner Circuit



●Chip Information

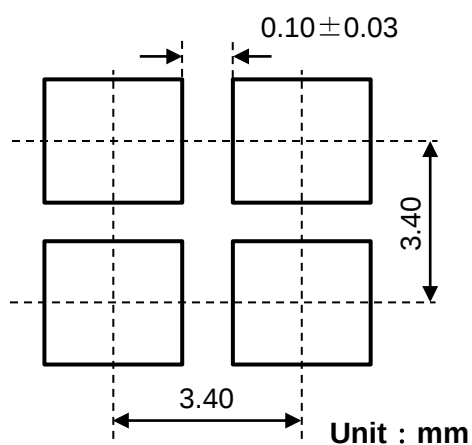


Unit : μm

 : Pad Area

① : Anode Bonding Pad

Backside : Cathode



Unit : mm

Wafer Size	200mm
Wafer Thickness	0.07±0.01mm
Chip Size	3.40mm×3.40mm
Cut Line Width	0.10±0.03mm
Top Side Metallization	AlSiCu:5.0 μm
Back Side Metallization	Ti/Ni:0.4 μm /Au:0.05 μm
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	RGTV80TS65D
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Technology qualified in TO-247N package.

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