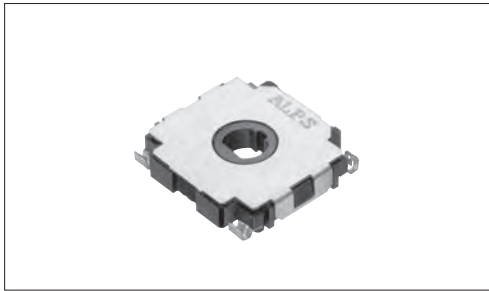


# RDC80 Through Shaft Type (360° Rotation)

Through shaft type that enables output covering the whole 360-degree angle due to adoption of 2-phase output



## Typical Specifications



Items	Specifications
Rated Voltage	5V DC
Operating life	20,000 cycles
Total resistance	10kΩ
Operating temperature range	-40°C to +120°C

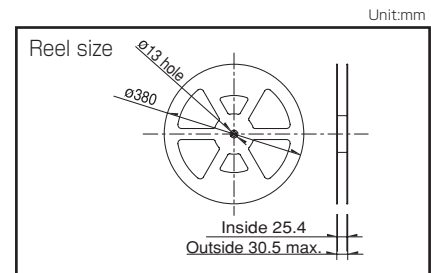
## Product Line

Mounting method	Linearity guarantee range	Linearity	Through shaft variation	Minimum order unit (pcs.)		Model No.
				Japan	Export	
Reflow	330° (1-phase) 360° (2-phase)	±3%	φ4.05	1,600	1,600	<b>RDC803101A</b>

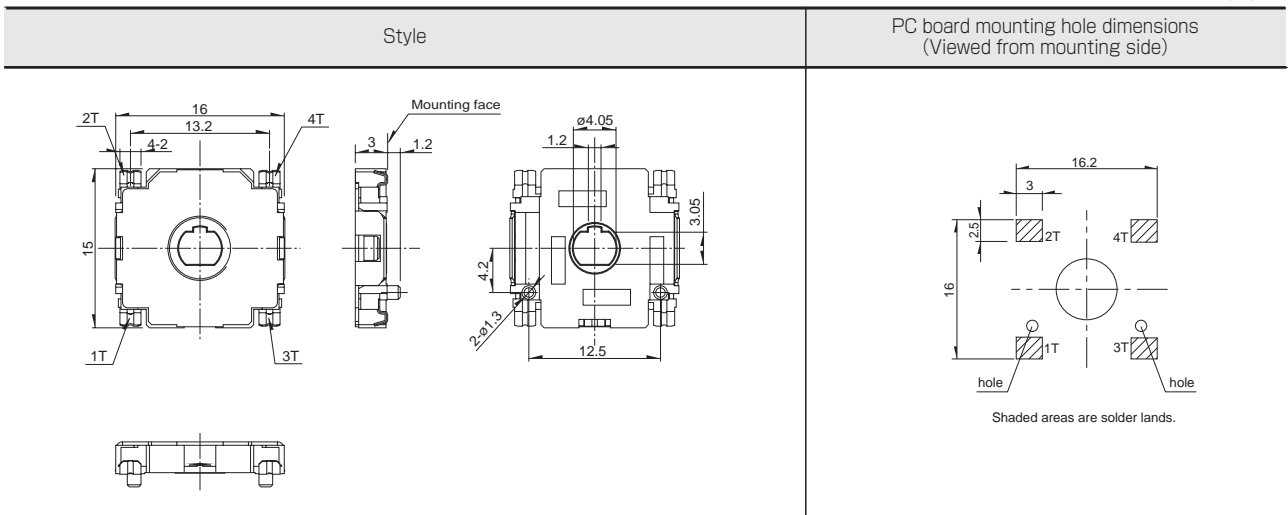
## Packing Specifications

Taping

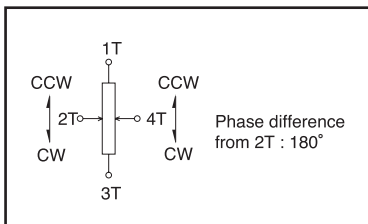
Number of packages (pcs.)			Tape width (mm)	Export package measurements (mm)
1 reel	1 case /Japan	1 case /export packing		
800	1,600	1,600	24	401×401×110



## Dimensions



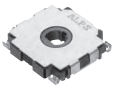

## Circuit Diagram



Refer to P.344 for other specifications.  
Refer to P.344 for soldering conditions.

# Through Shaft Type Potentiometers

## List of Varieties

Type	Through Shaft Type	
Series	<b>RDC80</b>	
Photo		
Direction of lever	Vertical	
Effective electrical angle (°)	340 (1-phase), 360 (2-phase)	
Linearity guarantee range (°)	330 (1-phase), 360 (2-phase)	
Operating temperature range	-40°C to +120°C	
Operating life	20,000 cycles	
Available for automotive use	●	
Life cycle (availability)		
Mechanical performance	Rotational torque	10mN·m max.
Electrical performance	Total resistance tolerance	±30%
	Linearity (%)	±3
	Rated voltage (V DC)	5
Environmental performance	Cold	-40°C 168h
	Dry heat	120°C 168h
	Damp heat	60°C, 90 to 95%RH 96h
Terminal style		Reflow
Page		343

Through Shaft Type Potentiometers Soldering Conditions	344
Potentiometers Cautions	384
Potentiometers Measurement and Test Methods	386

### Note

● Indicates applicability to all products in the series.

Rotary Potentiometers

Slide Potentiometers

Metal Shaft

Insulated Shaft

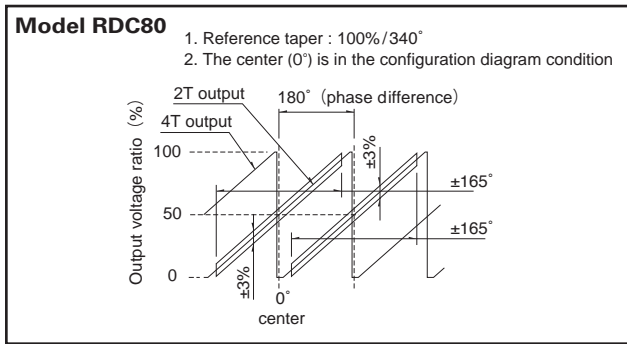
Knob Operating

Through Shaft Type

Ring Type

# Through Shaft Type / Product Specifications

## Method for Regulating the Linearity



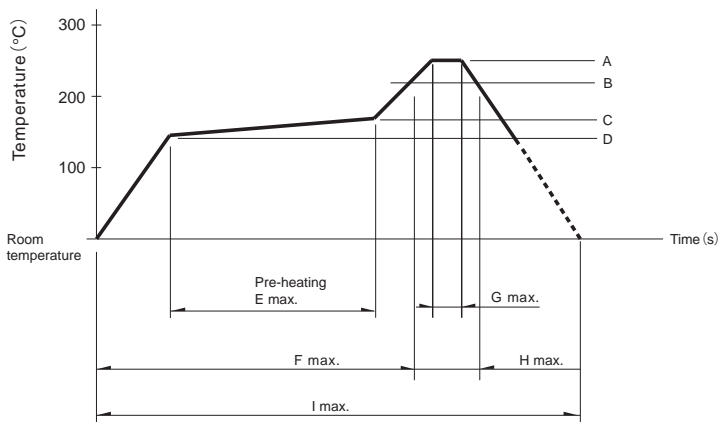
## Through Shaft Type / Soldering Conditions

### Reference for Manual Soldering

Series	Tip temperature	Soldering time
<b>RDC80</b>	350±5°C	3 <sup>+1</sup> <sub>0</sub> s

### Example of Reflow Soldering Condition

1. Cleaning should not be attempted.
2. Type of solder to be used Use cream solder that contains 10 to 15 %wt flux.
3. Number of solder applications - apply solder only once
4. Recommended reflow conditions



Series	A	B	C	D	E	F	G	H	I	No. of reflows
<b>RDC80</b>	250°C	—	180°C	150°C	90±30s	—	10±1s	—	—	1 time

### Notes

1. When using an infrared reflow oven, solder may not always be applied as intended. Be sure to use a hot air reflow oven or a type that uses infrared rays in combination with hot air.
2. The temperatures given above are the maximum temperatures at the terminals of the products when employing a hot air reflow method. The temperature of the PC board and the surface temperature of the products may vary greatly depending on the PC board material, its size and thickness. Ensure that the surface temperature of the products does not rise to 250°C or greater.
3. Conditions vary to some extent depending on the type of reflow bath used. Be sure to give due consideration to this prior to use.