

## ERD7 SERIES MINIATURE SIZE 7x3 ROTARY SWITCH



SMT



Through hole reflow (THR)  
Through hole (TH)



Right Angle (RA)



Right Angle (RA)  
Through hole (TH)



Right Angle (RA)  
SMT



J-hook  
SMT

### ■ FEATURES

- Low profile of 3.0mm.
- THR (Through Hole Reflow) version available.
- Available with spindle or slotted spindle.
- Supply various switch codes, include Gray code, Reel and Complement code.
- Gold plated contact area ensures reliable electric continuity for micro current.
- Surface mounting type can be supplied in embossed taping for automatic packing.
- Pin-out is compatible with most of current equivalents.
- All plastics are UL 94V-0 grade fire retardant.
- RoHS Compliant

### ■ APPLICATIONS

- Address switching applications
- Data storage devices
- Computer and peripherals
- Instrumentation



# Switch

## ■ SPECIFICATIONS

### 1.ELECTRICAL

● Contact rating	Max. switching load	100mA, 5VDC
	Min. switching load	10μA, 5VDC
● Contact resistance (initial)		200mΩ Max.
● Insulation resistance		100MΩ Min. at 100VDC
● Dielectric strength		250VAC rms. for 60 seconds

### 2.MECHANICAL and ENVIRONMENTAL

● Temperature rating	operation	-40°C to +85°C
	storage	-40°C to +85°C
● Operation force		510gf-cm Max.
● Operation life		10,000 detents Min.
● Vibration		10Hz-55Hz-10Hz for 6Hrs.
● Solderability		After flux 245°C ±5°C for 5±1 seconds
● Resistance to soldering heat	solder bath	260±5°C for 5±1 seconds
	solder reflow	Peak temperature 260°C Max.

### 3.SOLDERING PROCESS

● Solder iron	Max. 2 sec / 350°C
● Reflow soldering heat for SMT type (reference only)	<p>The graph shows a reflow soldering temperature profile. The y-axis is Temperature (°C) with markers at 150, 180, 220, and Max. 245. The x-axis is Time (sec) with markers for 120-150 sec and 20 sec Max. The curve starts at a low temperature, rises to 150°C, then to 180°C, and finally peaks at 245°C before cooling down.</p>

## CODE

### Real / Complement Code

PIN NO.	POSITIONS															
	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
1	○	●	○	●	○	●	○	●	○	●	○	●	○	●	○	●
2	○	○	●	●	○	○	●	●	○	○	●	●	○	○	●	●
4	○	○	○	○	●	●	●	●	○	○	○	○	●	●	●	●
8	○	○	○	○	○	○	○	○	○	●	●	●	●	●	●	●

●.....Real Code

○.....Complement Code

### Gray Code

PIN NO.	POSITIONS															
	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
1		●	●			●	●			●	●			●	●	
2			●	●	●	●					●	●	●	●		
4					●	●	●	●	●	●	●	●				
8									●	●	●	●	●	●	●	●

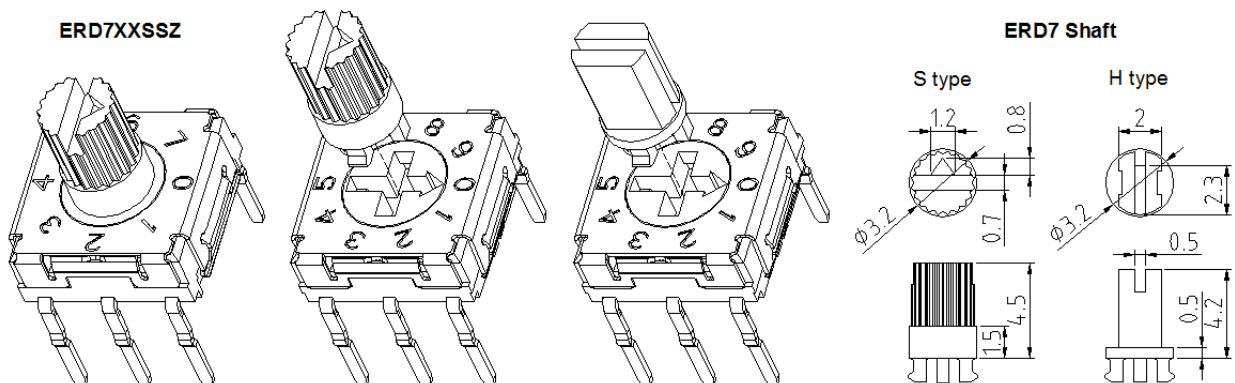
●.....Gray Code

## OPTIONS

1.Special marking available

2.Shaft available (for cross shaped slot type only) 418-90500(S type)

418-90900(H type)

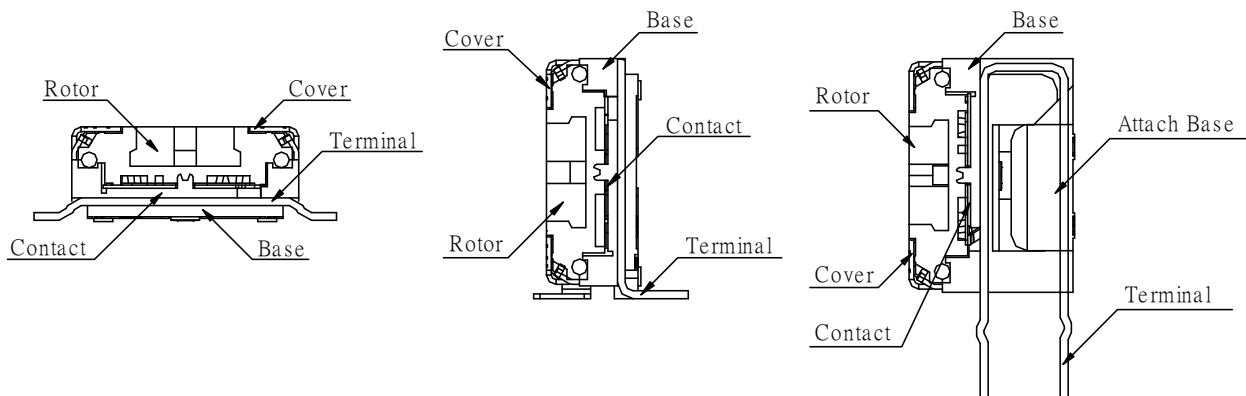


## ■ PART NUMBERING SYSTEM

ERD7 08 A S XX Z

- Z: RoHS Compliant
- Special number:
  - None: Center Common terminal pins location (3:3 pin out)
  - Center Output "8" terminal pin location (3:2, 5:0 pin out)
  - 06: Side Common terminal pins location (3:3 pin out)
  - Center Output "1" terminal pin location (3:2, 5:0 pin out)
- S: Spindle
- H: Slotted spindle
- Setting:
  - S: Standard type with row spacing 7.62mm
  - F: Right Angle type with row spacing 5.08mm
  - R: Right Angle type with row spacing 2.54mm
  - H: Right Angle type with row spacing 1.27mm
  - M: Surface Mounting type
  - D: "M" type in Tape & Reel Package
  - J: Right Angle with Surface Mounting type and side support terminal
  - T: "J" type in Tape & Reel Package
  - L: Right Angle with Surface Mounting type and forward support terminal
  - U: "L" type in Tape & Reel Package
  - C: J-hook with Surface Mounting type
  - E: "C" type in Tape & Reel Package
- Code:
  - None: Real code
  - R: Real code / Arrow shaped slot type
  - A: Real code / Cross shaped slot type
  - C: Complement code / Arrow shaped slot type
  - B: Complement code / Cross shaped slot type
  - G: Gray code / Cross shaped slot type
- Number of Positions: 8, 10, 16
- Series name: ERD7: Miniature size (7.2x7.2mm<sup>2</sup>) Rotary DIP Switch

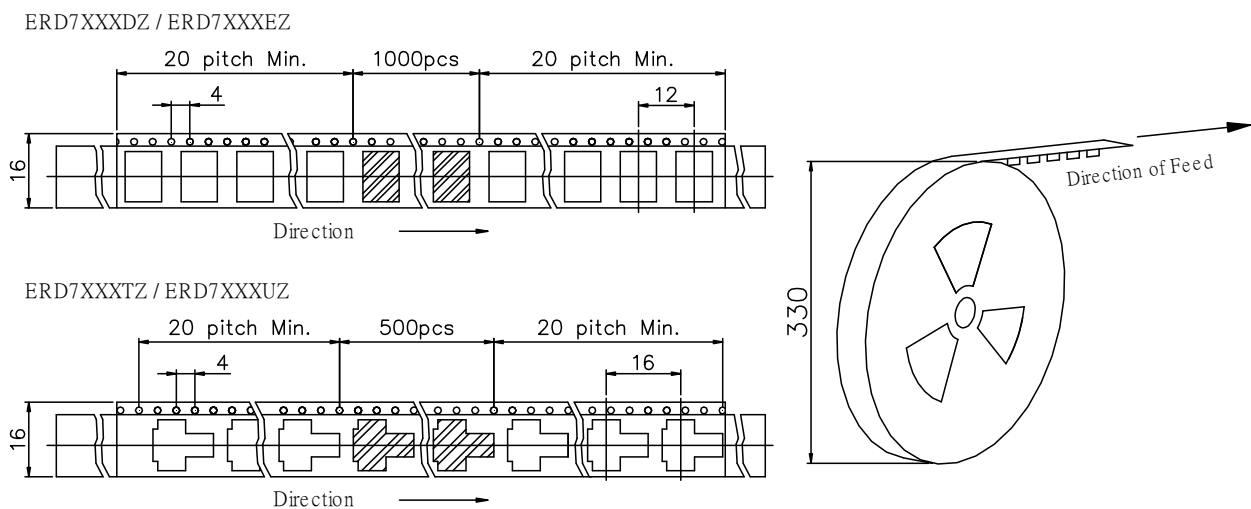
## ■ CONSTRUCTION



## PACKING

### 1. PACKING METHOD

Type	Package	Number of pcs. Per IC Tube	Number of pcs. Per Reel
Top Adjust Type		70	1000
Side Adjust Type		70	500

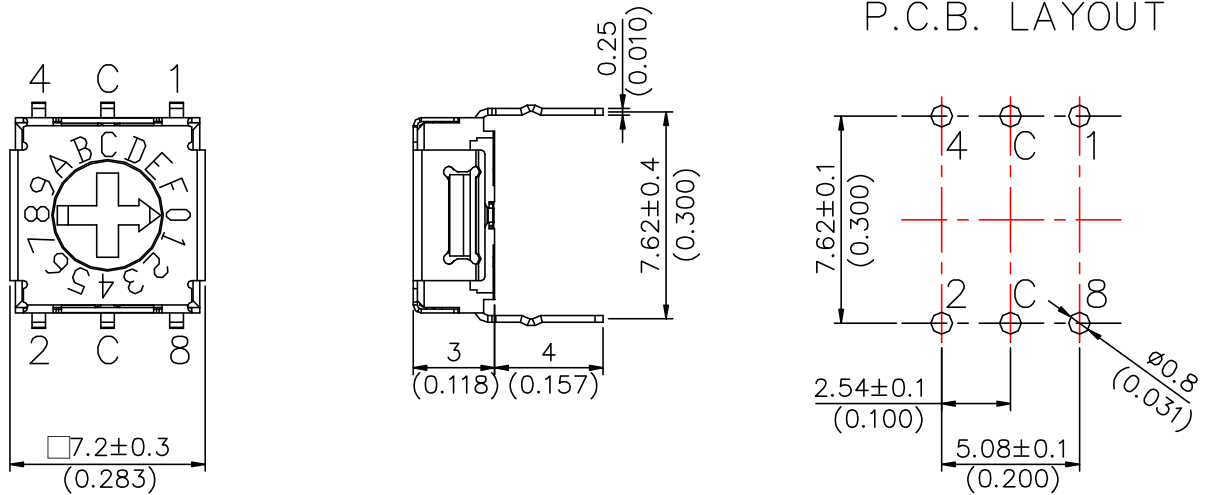


## QUICK SELECTION GUIDE

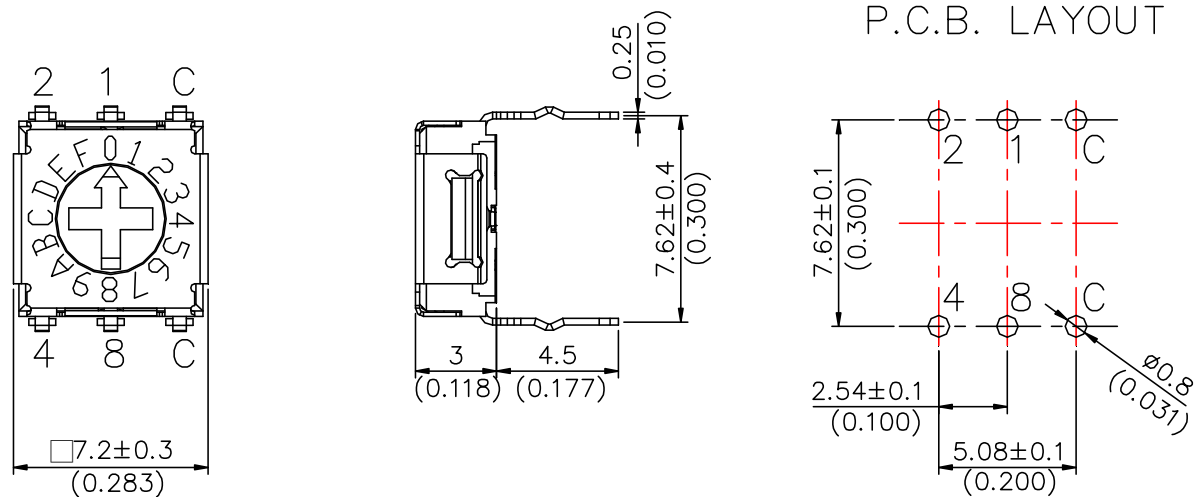
SIZE	POSITIONS	CODE	SETTING POSITION	PIN OUT	SHAPE OF TERMINAL	PART NUMBER
7x7	8,10,16	REAL COMPLEMENT GRAY	TOP SETTING	3:3	STANDARD	ERD7XXXSZ
					SMT	ERD7XXXMZ
					SMT IN T&R	ERD7XXXDZ
					J-HOOK WITH SMT	ERD7XXXCZ
					J-HOOK WITH SMT IN T&R	ERD7XXXEZ
			SIDE SETTING	3:3	RIGHT ANGLE	ERD7XXXRZ ERD7XXXFZ
					3:2	RIGHT ANGLE
				5:0	RIGHT ANGLE WITH SMT	ERD7XXXJZ ERD7XXXLZ
					RIGHT ANGLE WITH SMT IN T&R	ERD7XXXTZ ERD7XXXUZ

## ■ DIMENSIONS AND CIRCUITRY

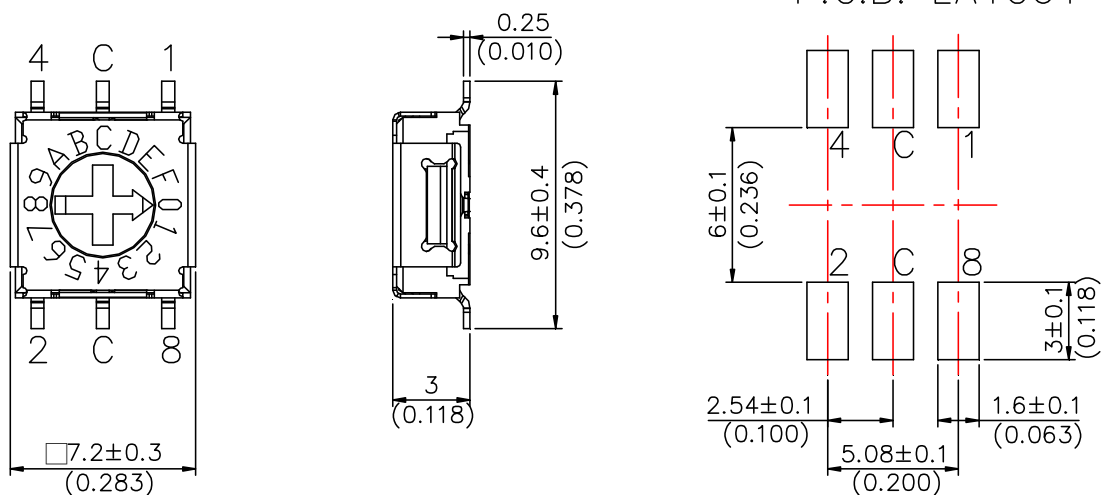
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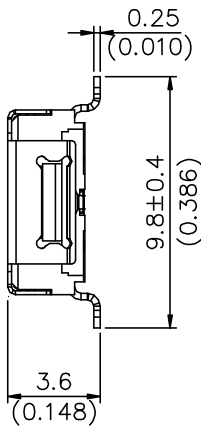
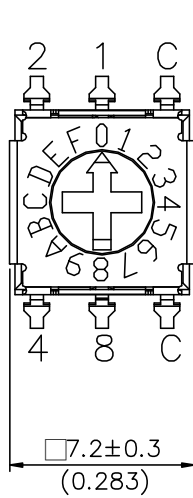
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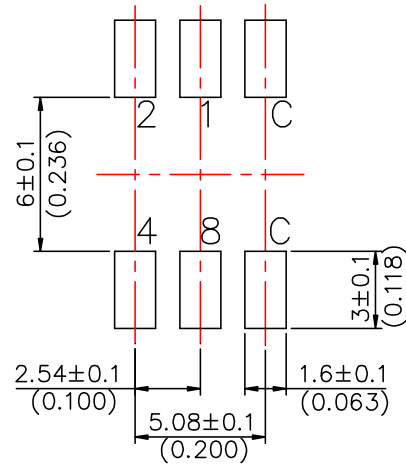
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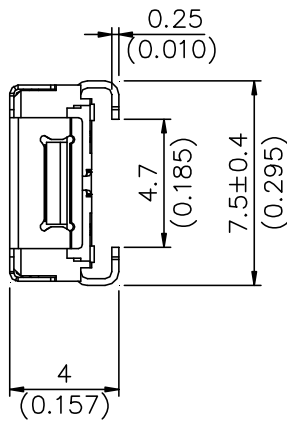
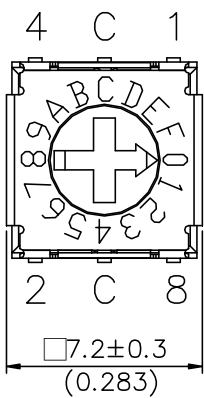
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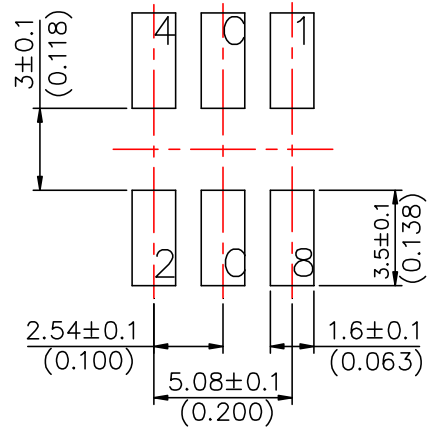
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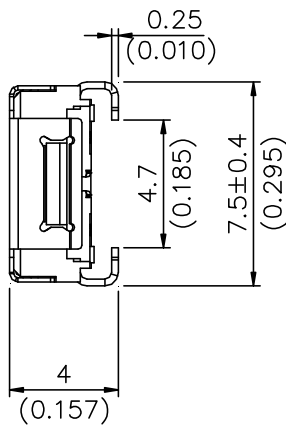
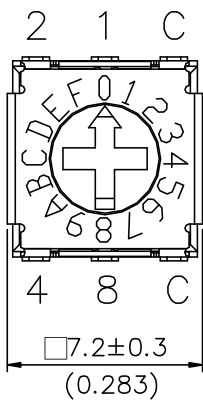
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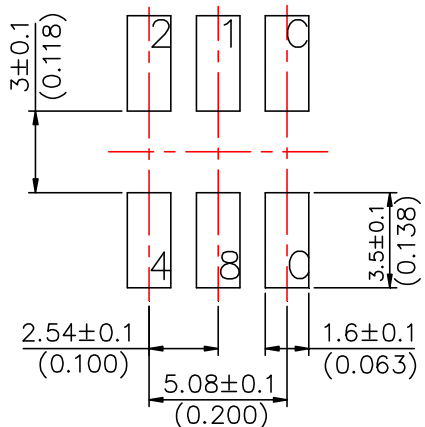
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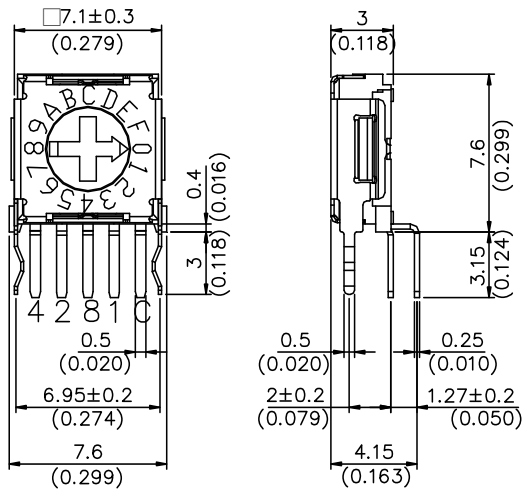
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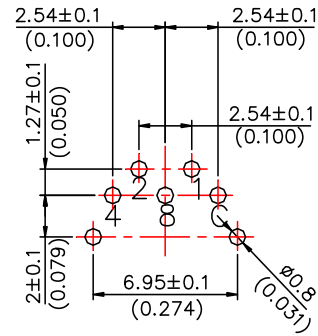
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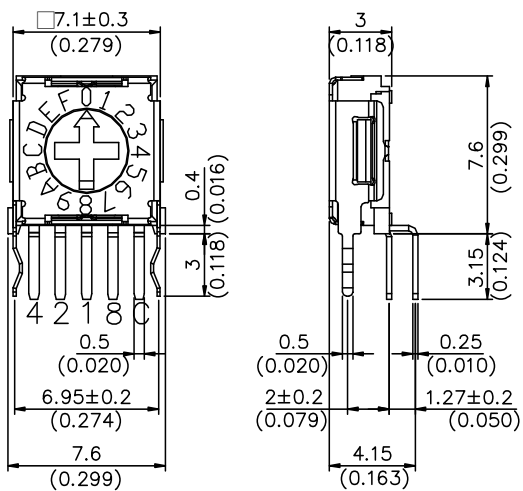
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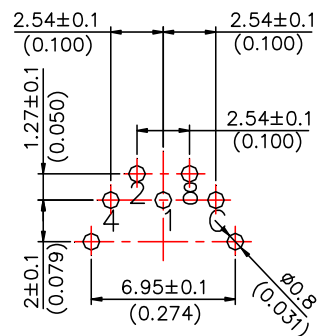
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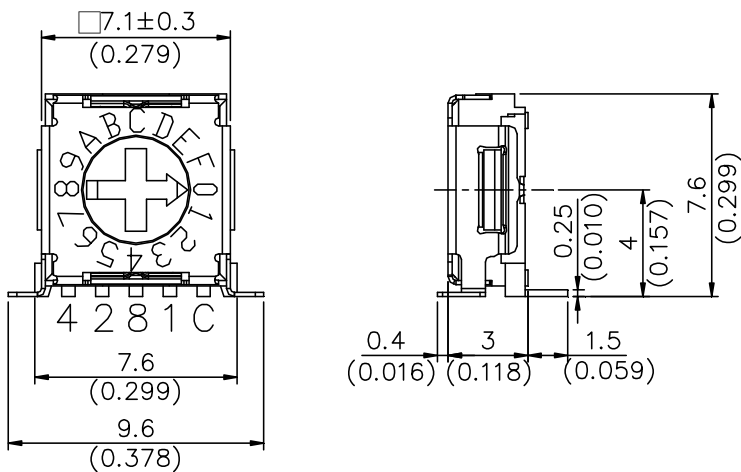
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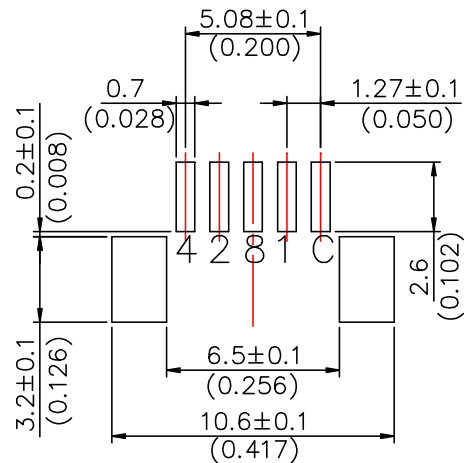
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### ERD7XXXJZ SERIES



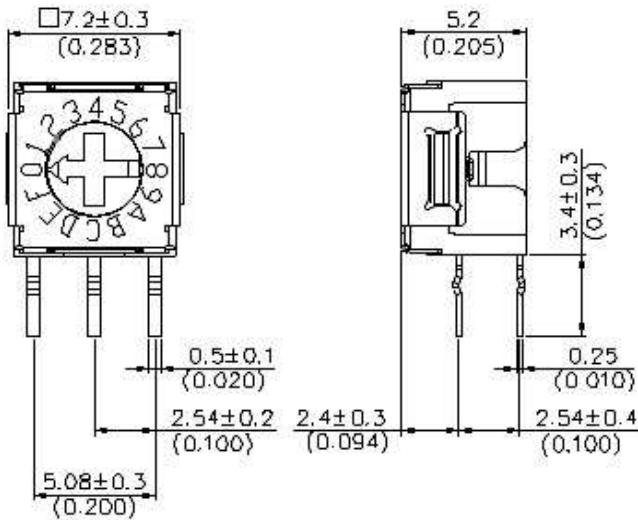
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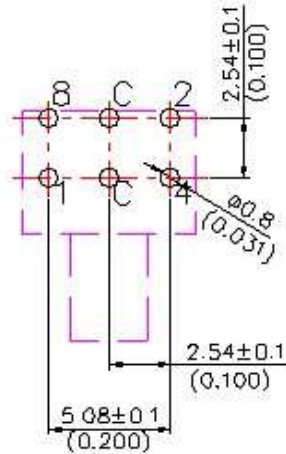




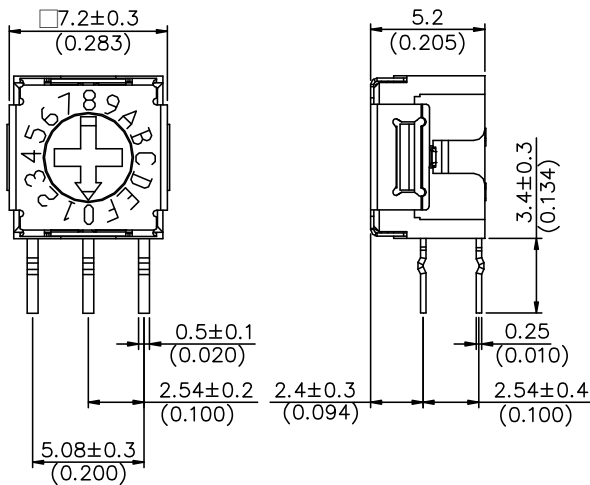
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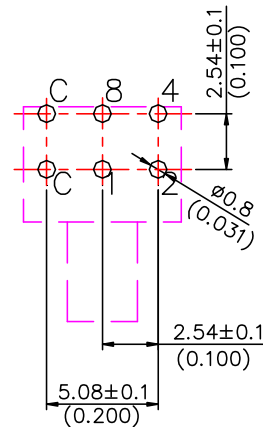
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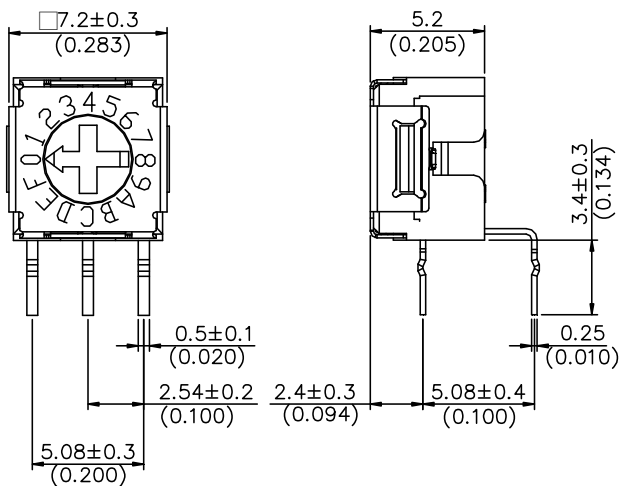
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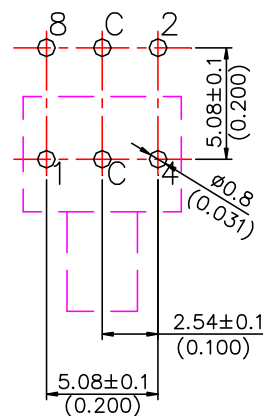
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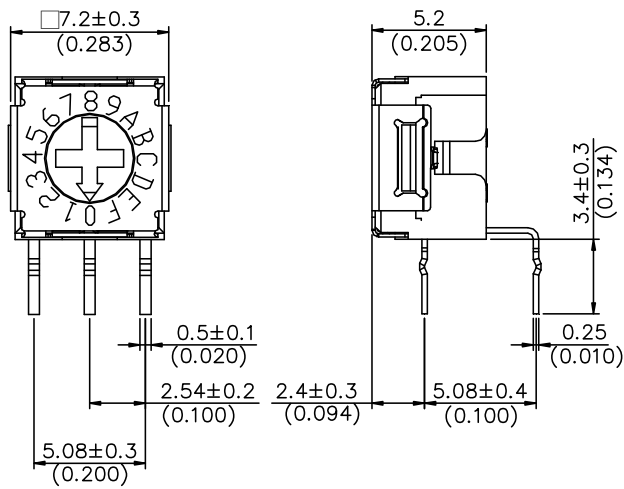
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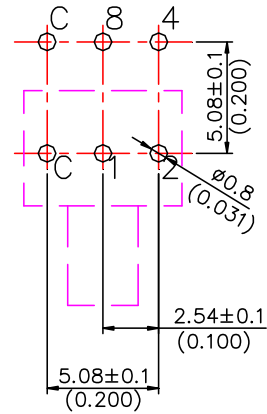
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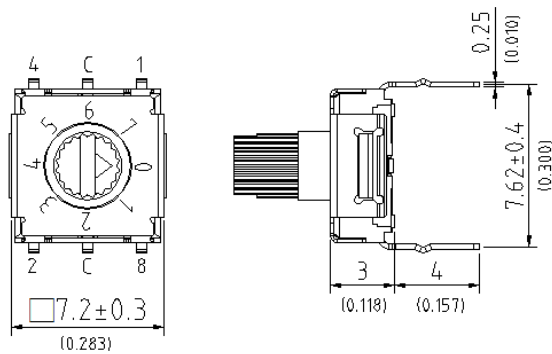
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## P.C.B. LAYOUT



## ERD7XXSSZ SERIES



## P.C.B. LAYOUT

