CUI DEVICES

SERIES: PTN10 | **DESCRIPTION:** ROTARY POTENTIOMETER

FEATURES

- carbon element
- dust proof enclosure
- multiple rotor options
- linear, logarithmic, and reverse logarithmic tapers



RoHS

SPECIFICATIONS

parameter	conditions/description	min	typ	max	units
maximum operating voltage				200	Vdc
power rating	at 70°C			0.15	W
taper	linear, logarithmic, and reverse logarithmic				
standard resistance range	see Resistance Table	1.0		2,000	kΩ
standard resistance tolerance	±10% or ±20%, see Part Number Key				
residual resistance				10	Ω
sliding noise				68	mV
operating temperature		-10		70	°C
hand soldering	for 3 seconds max			350	°C
wave soldering	for 5±1 seconds	255	260	265	°C
RoHS	yes				

MECHANICAL

parameter	conditions/description	min	typ	max	units
mechanical angle		225	235	245	°
rotational torque		10		80	gf-cm
stop strength		400			gf-cm
rotational life				10,000	cycles
weight	varies by model	0.5		0.7	g

PART NUMBER KEY

PTN10 - X XX X X XX

Base Number

Terminal Configuration:
A = Vertical, Straight Inward Terminals
B = Vertical, Crimped Terminals
C = Vertical, Straight Outward Terminals
D = Horizontal, Crimped Terminals
E = Horizontal, Straight Terminals

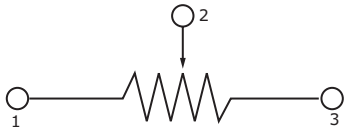
Resistance:
01 = 1 kΩ
02 = 2 kΩ
05 = 5 kΩ
10 = 10 kΩ
20 = 20 kΩ
25 = 25 kΩ
50 = 50 kΩ
100 = 100 kΩ
200 = 200 kΩ
500 = 500 kΩ
11 = 1 MΩ
22 = 2 MΩ

Rotor Type:
S = Screwdriver
H = Hexagonal
C = Cross Slot
D = D-Cut

Resistance Taper:
A = Reverse Logarithmic
B = Linear
C = Logarithmic

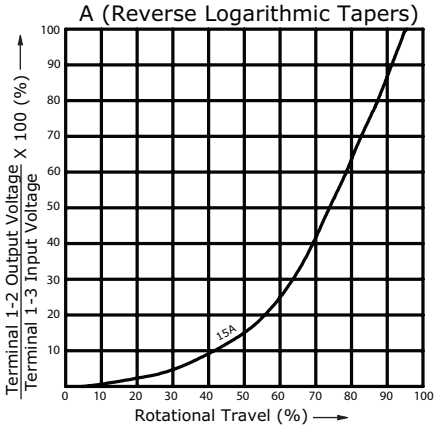
Tolerance:
10 = ±10%
20 = ±20%

SCHEMATIC/TAPERS

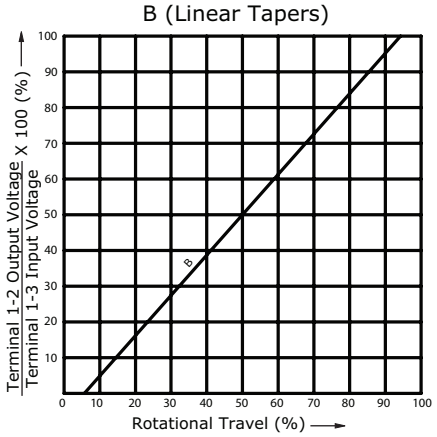


Resistance Table	
Resistance (KΩ)	Code
1	01
2	02
5	05
10	10
20	20
25	25
50	50
100	100
200	200
500	500
1,000	11
2,000	22

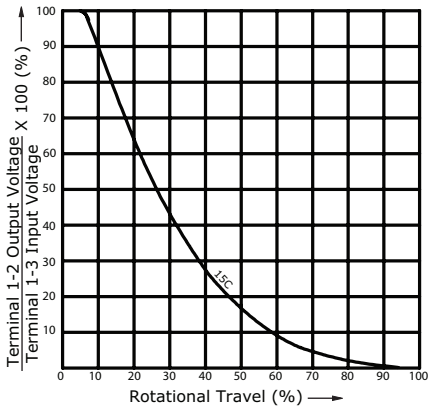
A (Reverse Logarithmic Tapers)



B (Linear Tapers)

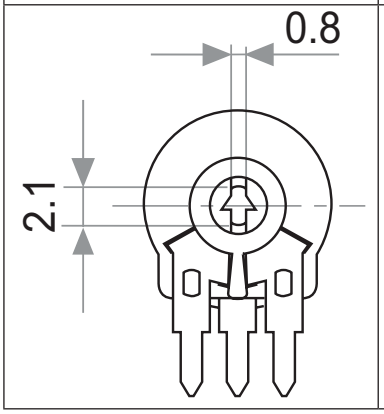
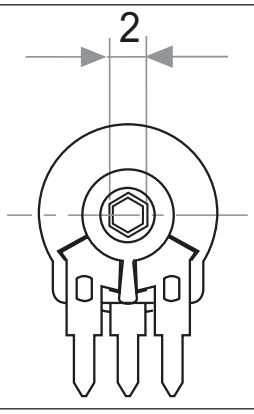
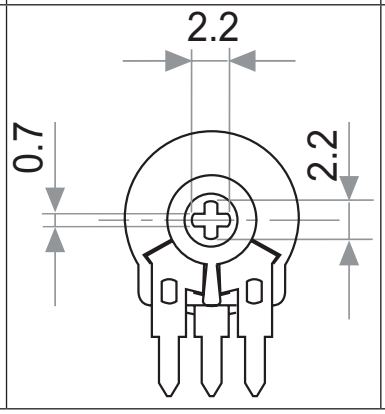
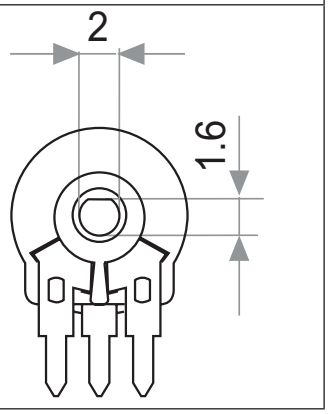


C (Logarithmic Tapers)



ROTOR TYPE

units: mm
tolerance: ±0.3 mm
unless otherwise noted

S = Screwdriver	H = Hexagonal	C = Cross Slot	D = D-Cut
			

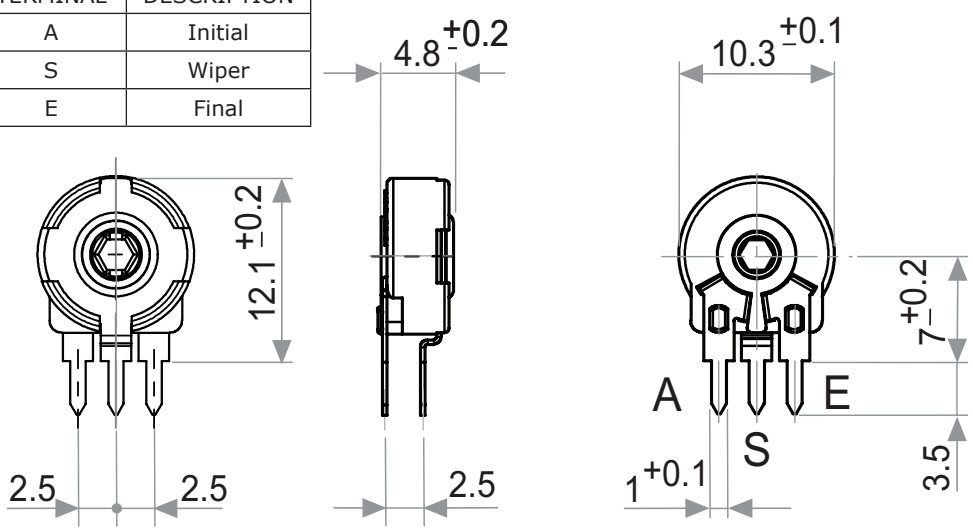
Note: Default delivery is at initial position of wiper.

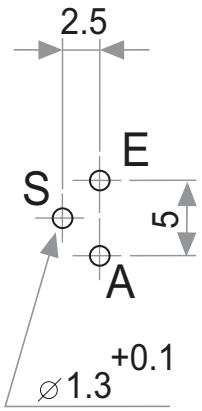
MECHANICAL DRAWING (VERTICAL, STRAIGHT INWARD TERMINALS)

units: mm
tolerance:
X≤10: ±0.3 mm
10<X≤30: ±0.5 mm
30<X≤100: ±1.0 mm
unless otherwise noted

ITEM	DESCRIPTION	MATERIAL	PLATING/COLOR
A	housing	PA6 (UL94HB)	black
B	terminals	steel	tin
C	reed	tin bronze	

TERMINAL CONNECTIONS	
TERMINAL	DESCRIPTION
A	Initial
S	Wiper
E	Final





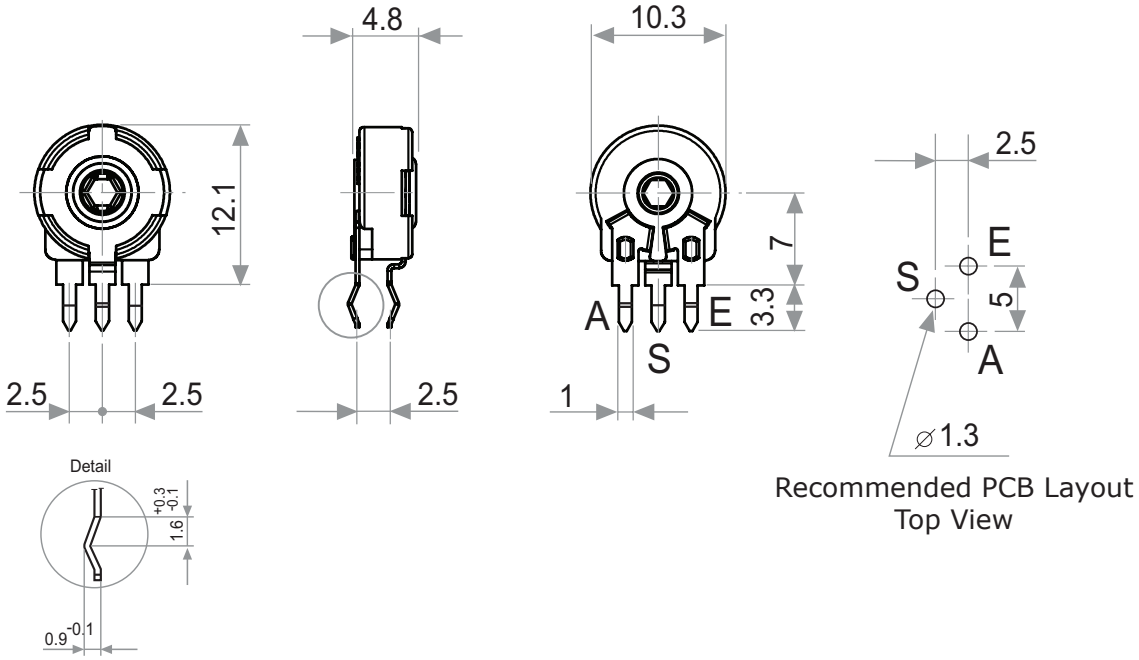
Recommended PCB Layout
Top View

MECHANICAL DRAWING (VERTICAL, CRIMPED TERMINALS)

units: mm
tolerance:
X≤10: ±0.3 mm
10<X≤30: ±0.5 mm
30<X≤100: ±1.0 mm
unless otherwise noted

ITEM	DESCRIPTION	MATERIAL	PLATING/COLOR
A	housing	PA6 (UL94HB)	black
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TERMINAL CONNECTIONS	
TERMINAL	DESCRIPTION
A	Initial
S	Wiper
E	Final



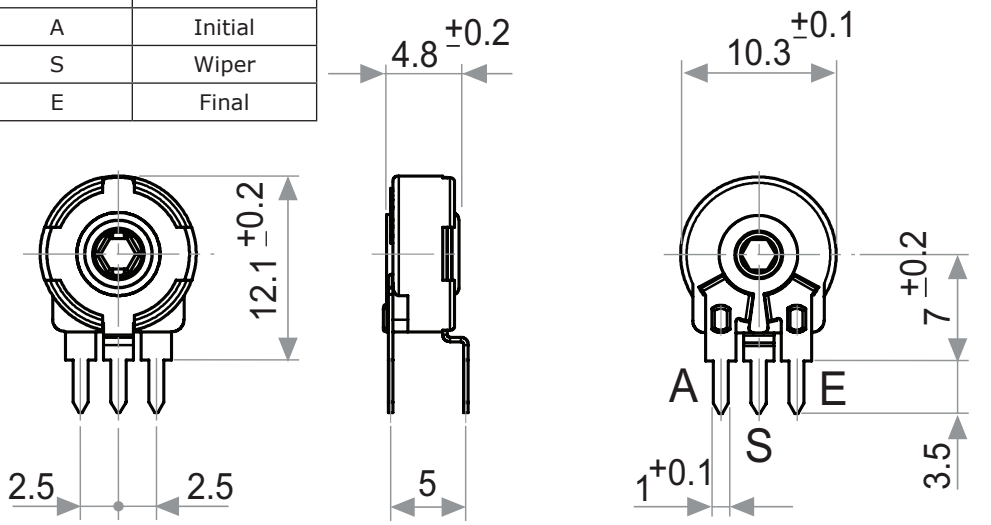
Recommended PCB Layout
Top View

MECHANICAL DRAWING (VERTICAL, STRAIGHT OUTWARD TERMINALS)

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30<X≤100: ±1.0 mm
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TERMINAL CONNECTIONS	
TERMINAL	DESCRIPTION
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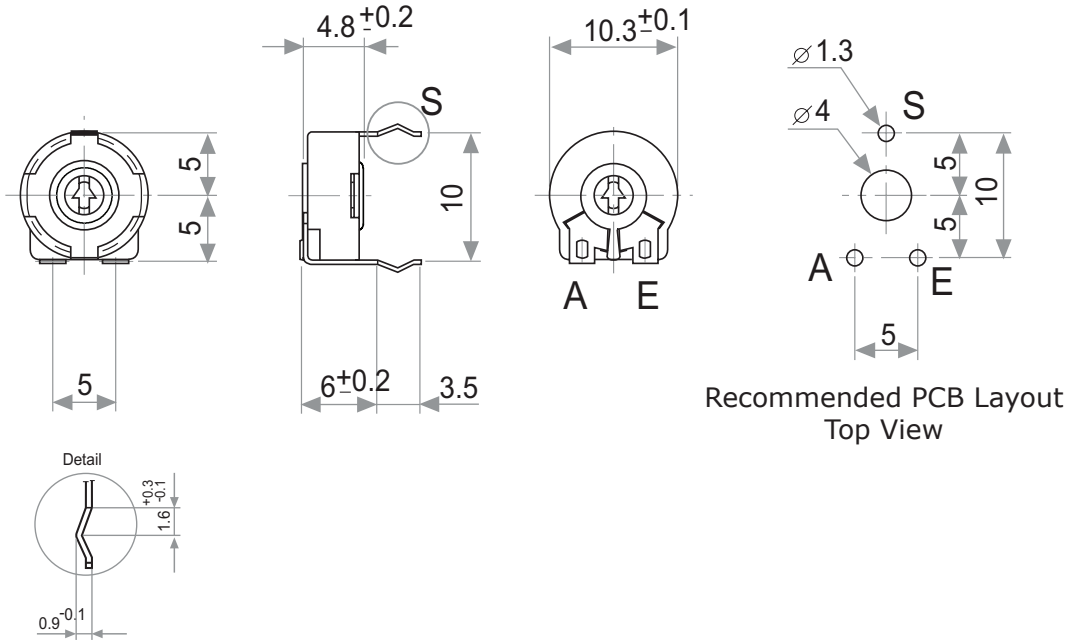
Recommended PCB Layout
Top View

MECHANICAL DRAWING (HORIZONTAL, CRIMPED TERMINALS)

units: mm
tolerance:
X≤10: ±0.3 mm
10<X≤30: ±0.5 mm
30<X≤100: ±1.0 mm
unless otherwise noted

ITEM	DESCRIPTION	MATERIAL	PLATING/COLOR
A	housing	PA6 (UL94HB)	black
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TERMINAL CONNECTIONS	
TERMINAL	DESCRIPTION
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E	Final



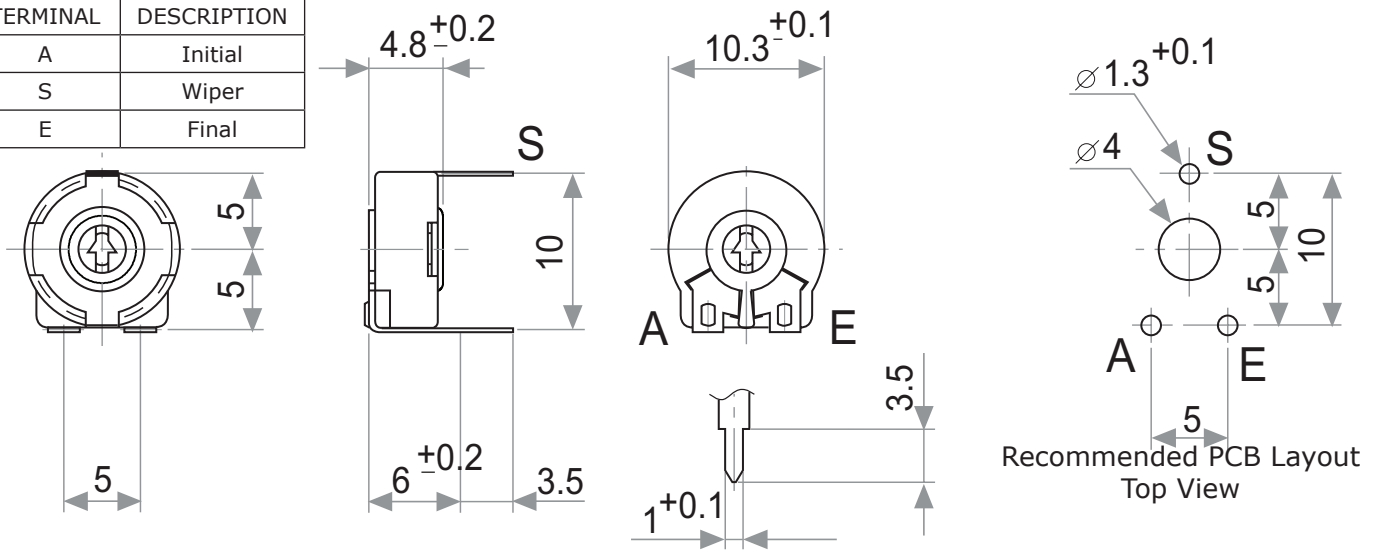
Recommended PCB Layout
Top View

MECHANICAL DRAWING (HORIZONTAL, STRAIGHT TERMINALS)

units: mm
tolerance:
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unless otherwise noted

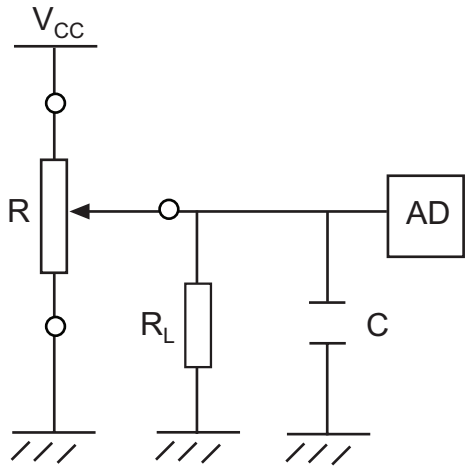
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TERMINAL CONNECTIONS	
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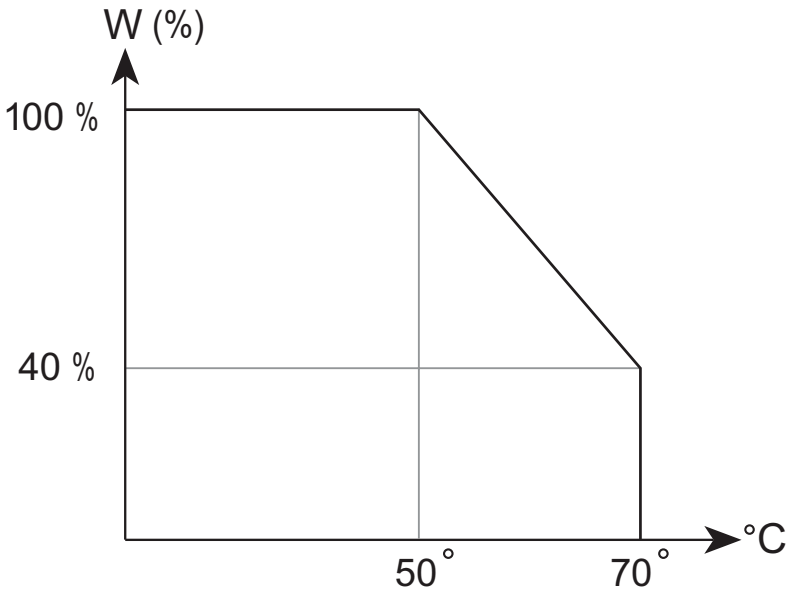
Recommended PCB Layout
Top View

RECOMMENDED CIRCUIT



$R_L \approx 100 \times R$

POWER DERATING CURVE



REVISION HISTORY

rev.	description	date
1.0	initial release	06/22/2022

The revision history provided is for informational purposes only and is believed to be accurate.

CUI DEVICES

CUI Devices offers a one (1) year limited warranty. Complete warranty information is listed on our website.

CUI Devices reserves the right to make changes to the product at any time without notice. Information provided by CUI Devices is believed to be accurate and reliable. However, no responsibility is assumed by CUI Devices for its use, nor for any infringements of patents or other rights of third parties which may result from its use.

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