

SERIES: PTN06 | **DESCRIPTION:** ROTARY POTENTIOMETER

FEATURES

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


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		0.18	0.185	0.19	g

PART NUMBER KEY

PTN06 - X XX X X XX - X

Base Number

Terminal Configuration:
 B = Vertical, Crimped 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

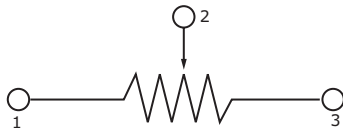
Rotor Type:
 H = Hexagonal
 C = Cross Slot

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

Wiper Position:
 blank = initial
 H = 50%

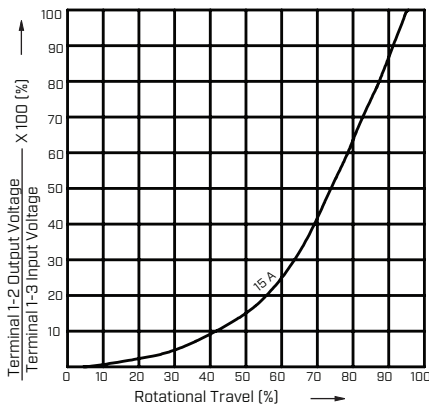
Tolerance:
 10 = ±10%
 20 = ±20%

SCHEMATIC/TAPERS

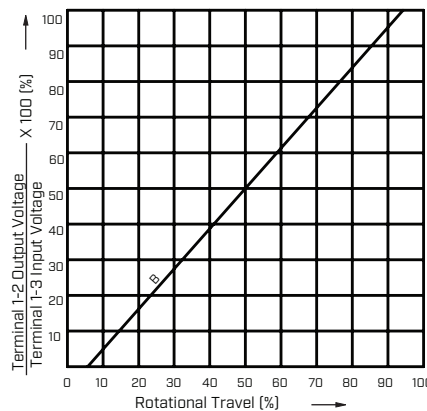


Resistance Table	
Resistance [KΩ]	Code
1	01
2	02
5	05
10	10
20	20
25	25
50	50
100	100
200	200
500	500
1,000	11
2,000	22

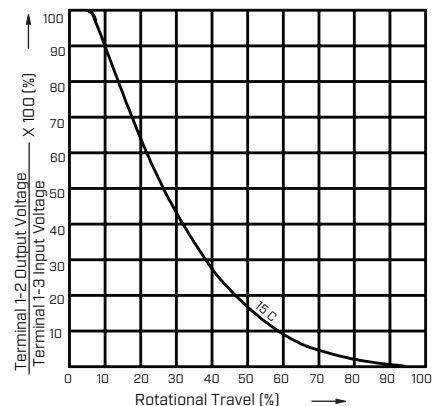
A (Logarithmic Tapers)



B (Linear Tapers)

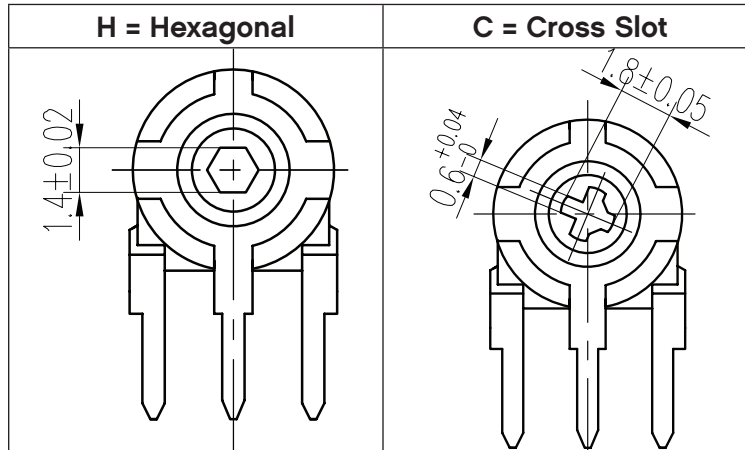


C (Reverse Logarithmic Tapers)



ROTOR TYPE

units: mm
 tolerance: ± 0.3 mm
 unless otherwise noted



MECHANICAL DRAWING (VERTICAL, CRIMPED TERMINALS)

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

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

TERMINAL CONNECTIONS	
TERMINAL	DESCRIPTION
1	Initial
2	Wiper
3	Final



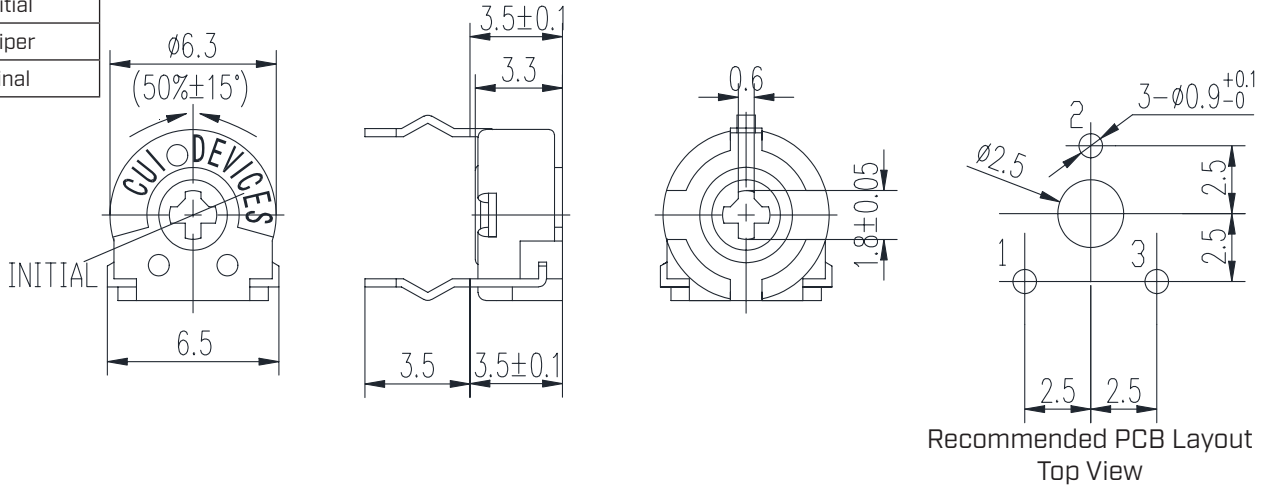
Recommended PCB Layout
 Top View

MECHANICAL DRAWING (HORIZONTAL, CRIMPED TERMINALS)

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

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

TERMINAL CONNECTIONS	
TERMINAL	DESCRIPTION
1	Initial
2	Wiper
3	Final

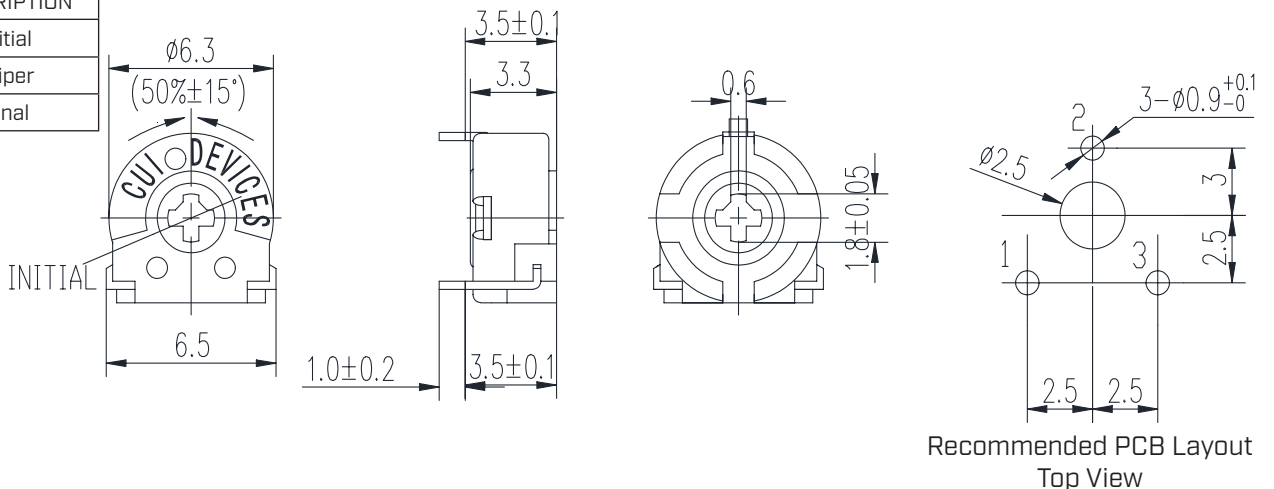


MECHANICAL DRAWING (HORIZONTAL, STRAIGHT TERMINALS)

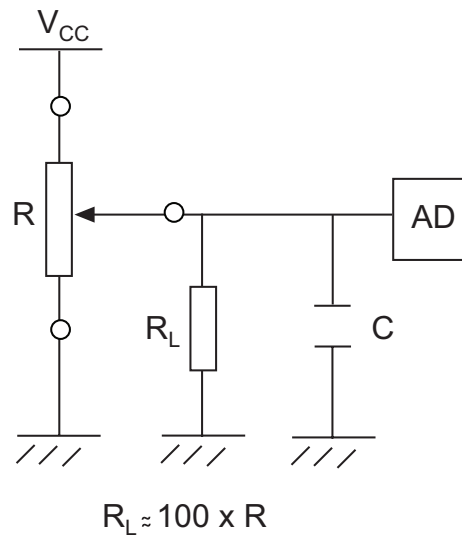
units: mm
 tolerance:
 $X \leq 10$: ± 0.3 mm
 $10 < X \leq 30$: ± 0.5 mm
 $30 < X \leq 100$: ± 1.0 mm
 unless otherwise noted

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

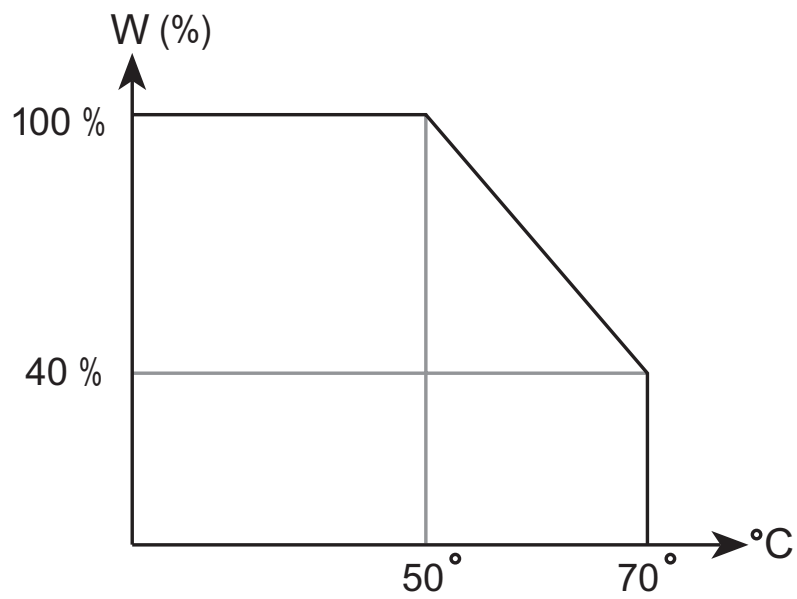
TERMINAL CONNECTIONS	
TERMINAL	DESCRIPTION
1	Initial
2	Wiper
3	Final



RECOMMENDED CIRCUIT



POWER DERATING CURVE



REVISION HISTORY

rev.	description	date
1.0	initial release	10/27/2022
1.01	updated taper detail	01/15/2024

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



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.

CUI Devices products are not authorized or warranted for use as critical components in equipment that requires an extremely high level of reliability. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

cuidevices.com