

SERIES: PTN09X | **DESCRIPTION:** ROTARY POTENTIOMETER**FEATURES**

- ganging up to 4 sections
- center detent option
- carbon element
- multiple shaft options

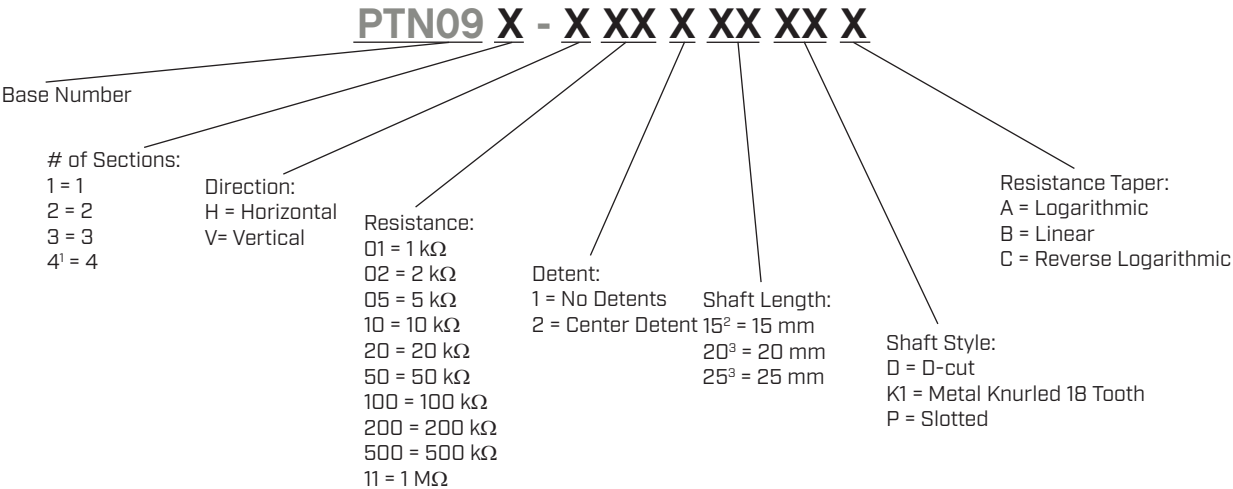
**SPECIFICATIONS**

parameter	conditions/description	min	typ	max	units
maximum operating voltage				10 50	Vdc Vac
power rating				0.05	W
taper	linear, logarithmic, and reverse logarithmic				
standard resistance range	see Resistance Table	1		1,000	k Ω
standard resistance tolerance			± 20		%
sliding noise				68	mV
operating temperature		-10		75	$^{\circ}\text{C}$
hand soldering	for 3 seconds max			350	$^{\circ}\text{C}$
wave soldering	for 5 seconds max			260	$^{\circ}\text{C}$
RoHS	yes				

MECHANICAL

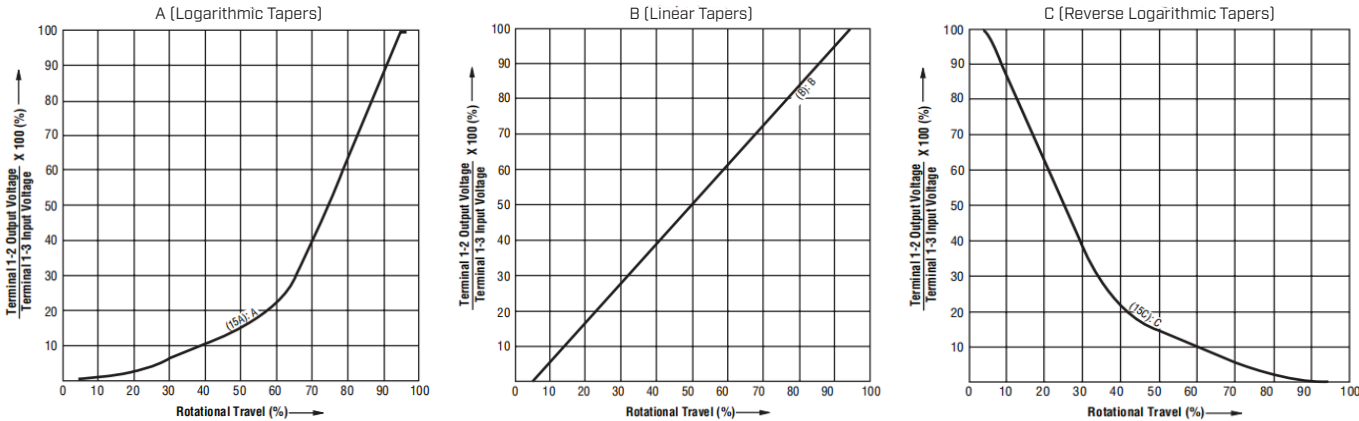
parameter	conditions/description	min	typ	max	units
mechanical angle		290	300	300	$^{\circ}$
rotational torque		10		250	gf-cm
stop strength		4			kg-cm
shaft wobble	0.5xL/30 mm p-p max				
rotational life			10,000		cycles
weight			5		g

PART NUMBER KEY



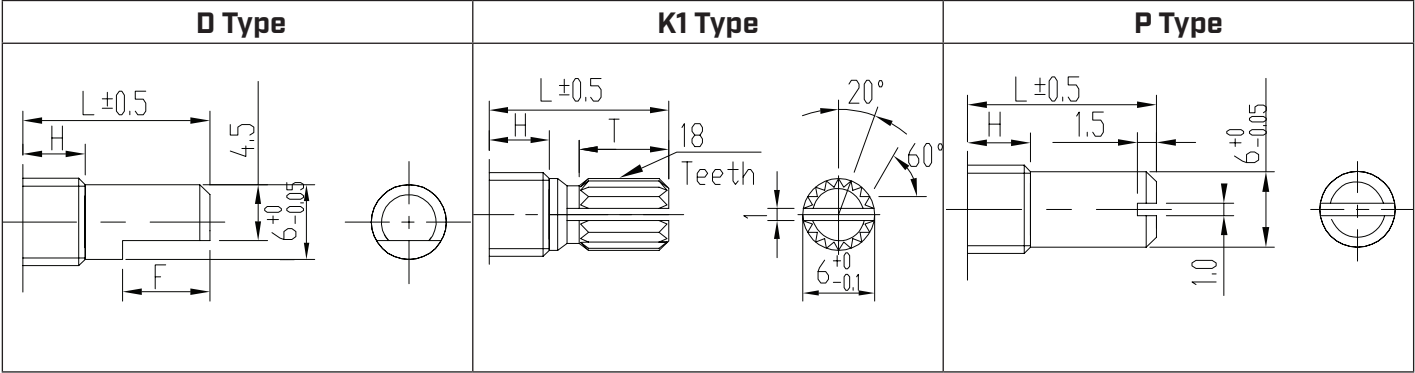
Note: 1. 4 sections only available in horizontal version.
2. 5 mm bushing length offered on 15 mm shaft only.
3. 7 mm bushing length offered on 20 & 25 mm shafts only.

TAPERS



SHAFT TYPES

units: mm
tolerance:
X≤10.00: ±0.30 mm
10.00<X≤30.00: ±0.50 mm
30.00<X≤100.00: ±1.0 mm
unless otherwise noted



H	5	7	7
L	15	20	25
F	7	12	12

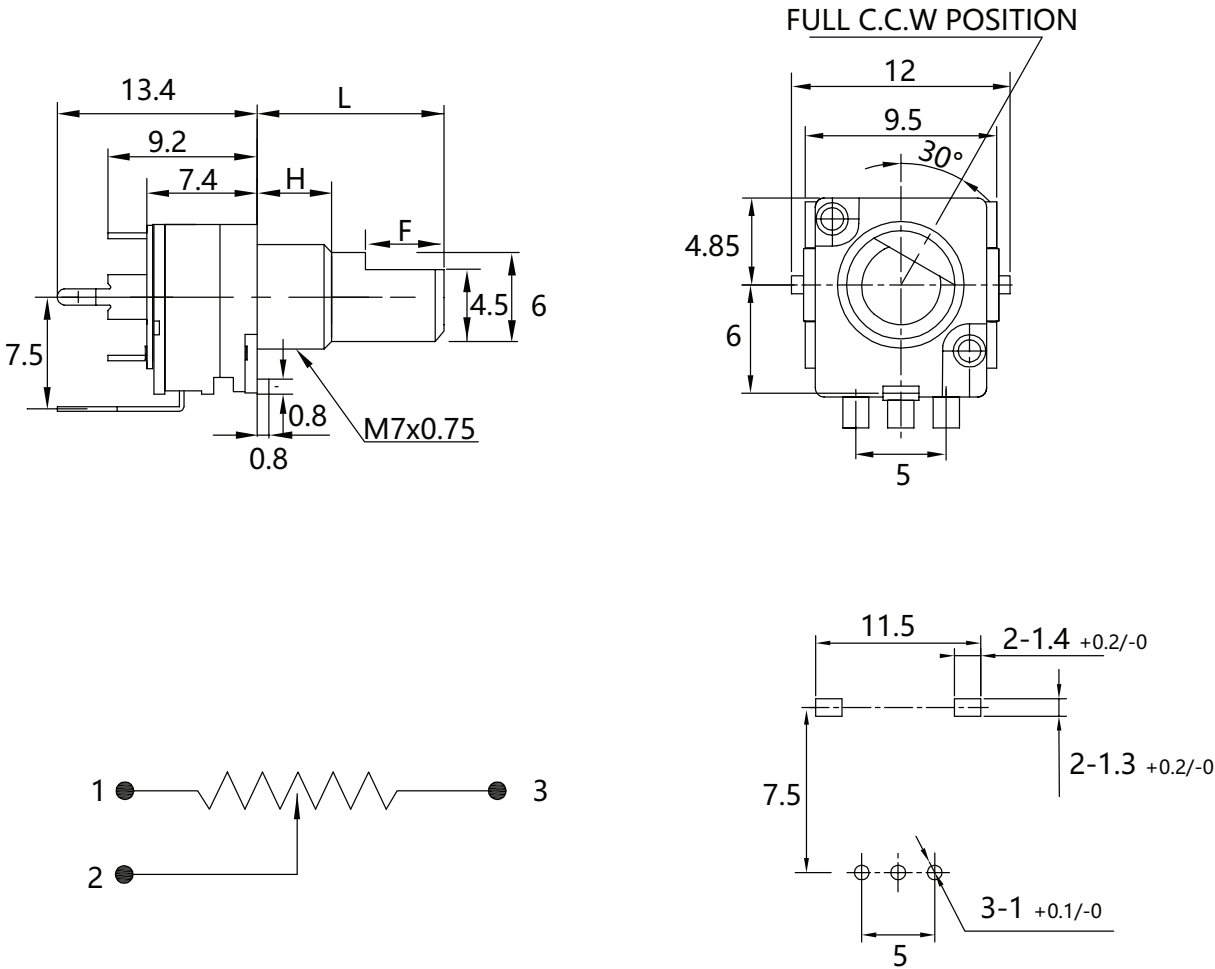
H	5	7	7
L	15	20	25
F	6	10	12

H	5	7	7
L	15	20	25

MECHANICAL DRAWING (VERTICAL, 1 SECTION)

units: mm
tolerance:
X≤10.00: ±0.30 mm
10.00<X≤30.00: ±0.50 mm
30.00<X≤100.00: ±1.0 mm
unless otherwise noted

DESCRIPTION	MATERIAL
shaft	aluminum
bushing	zinc alloy
driving plate	POM
rivet	aluminum
reed	phosphor copper
base	PBT
carbon plate	FR4 substrate
terminal	cold rolled strip
cover plate	PBT

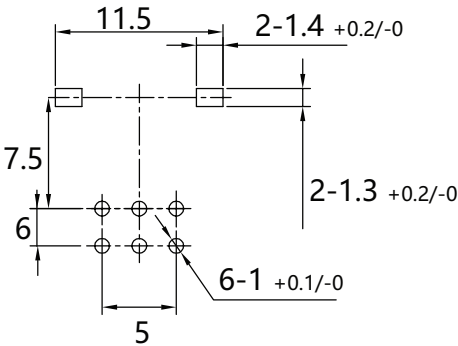
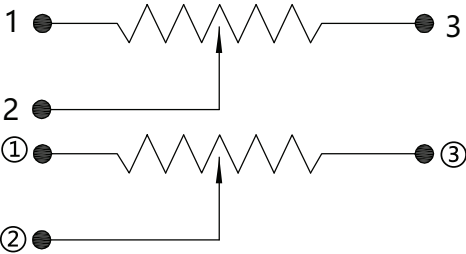
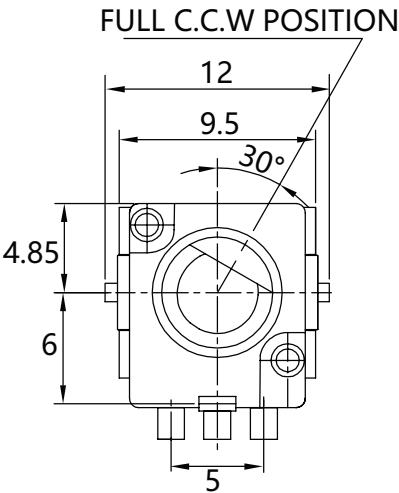
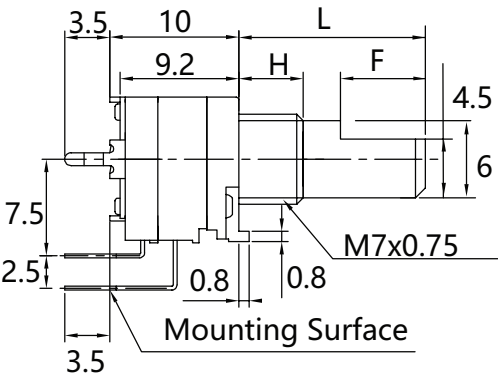


Recommended PCB Layout
Top View

MECHANICAL DRAWING (VERTICAL, 2 SECTIONS)

units: mm
tolerance:
X≤10.00: ±0.30 mm
10.00<X≤30.00: ±0.50 mm
30.00<X≤100.00: ±1.0 mm
unless otherwise noted

DESCRIPTION	MATERIAL
shaft	aluminum
bushing	zinc alloy
driving plate	POM
rivet	aluminum
reed	phosphor copper
base	PBT
carbon plate	FR4 substrate
terminal	cold rolled strip
cover plate	PBT

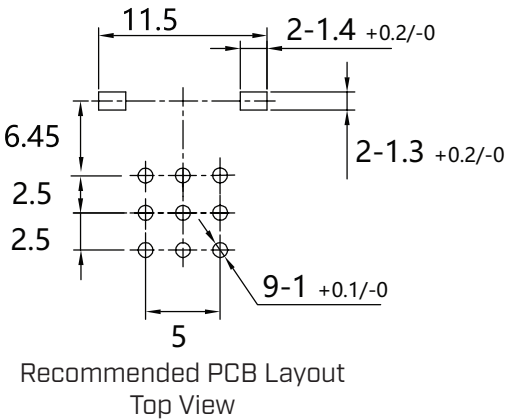
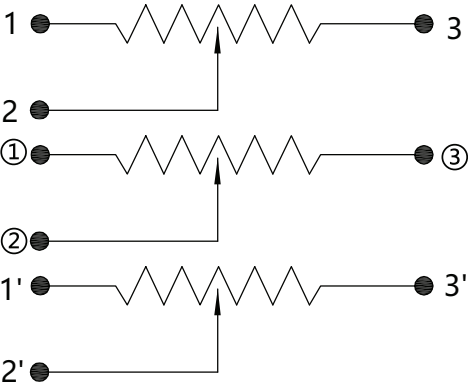
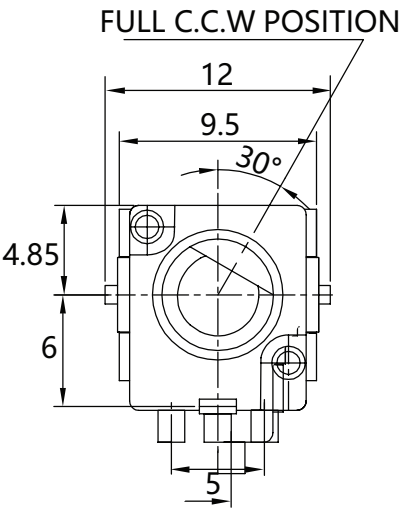
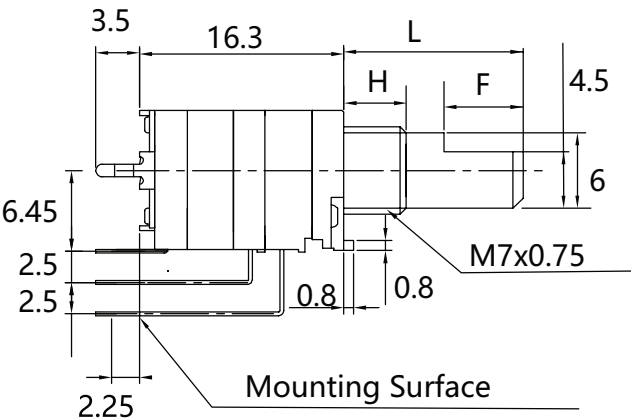


Recommended PCB Layout
Top View

MECHANICAL DRAWING (VERTICAL, 3 SECTIONS)

units: mm
tolerance:
X≤10.00: ±0.30 mm
10.00<X≤30.00: ±0.50 mm
30.00<X≤100.00: ±1.0 mm
unless otherwise noted

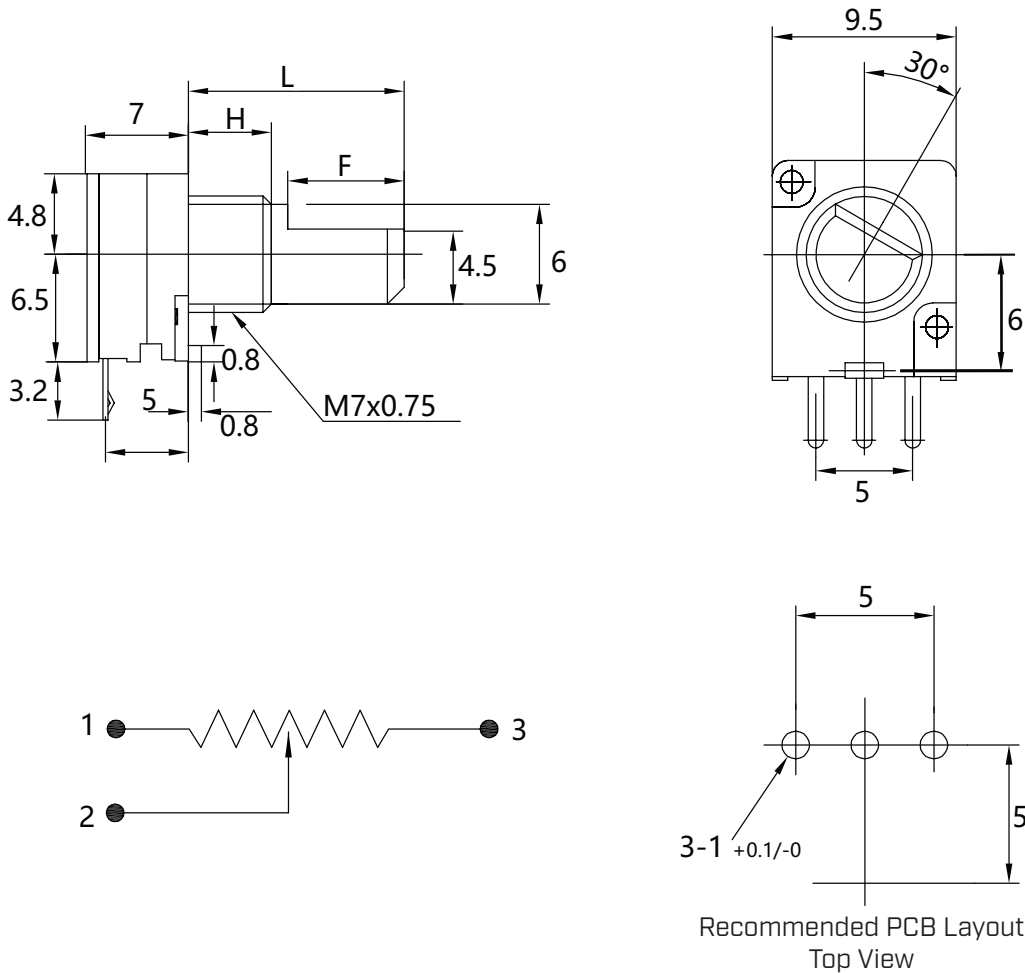
DESCRIPTION	MATERIAL
shaft	aluminum
bushing	zinc alloy
driving plate	POM
rivet	aluminum
reed	phosphor copper
base	PBT
carbon plate	FR4 substrate
terminal	cold rolled strip
cover plate	PBT



MECHANICAL DRAWING (HORIZONTAL, 1 SECTION)

units: mm
tolerance:
 $X \leq 10.00$: ± 0.30 mm
 $10.00 < X \leq 30.00$: ± 0.50 mm
 $30.00 < X \leq 100.00$: ± 1.0 mm
unless otherwise noted

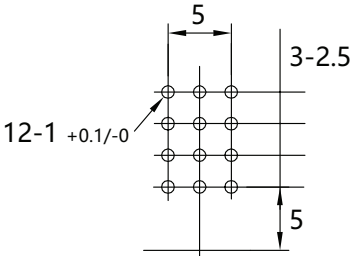
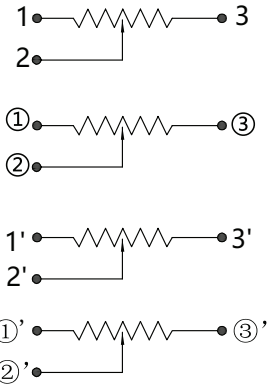
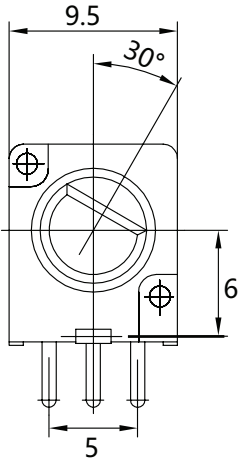
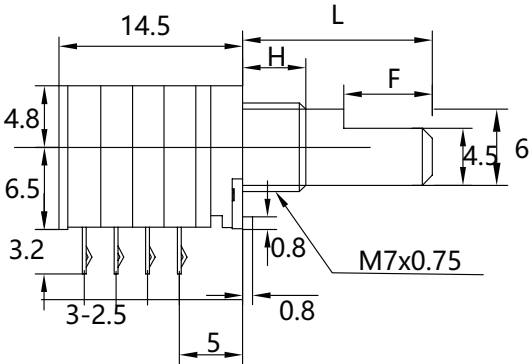
DESCRIPTION	MATERIAL
shaft	aluminum
bushing	zinc alloy
driving plate	PDM
rivet	aluminum
reed	phosphor copper
base	PBT
carbon plate	FR4 substrate
terminal	cold rolled strip
cover plate	PBT



MECHANICAL DRAWING (HORIZONTAL, 4 SECTIONS)

units: mm
tolerance:
 $X \leq 10.00$: ± 0.30 mm
 $10.00 < X \leq 30.00$: ± 0.50 mm
 $30.00 < X \leq 100.00$: ± 1.0 mm
unless otherwise noted

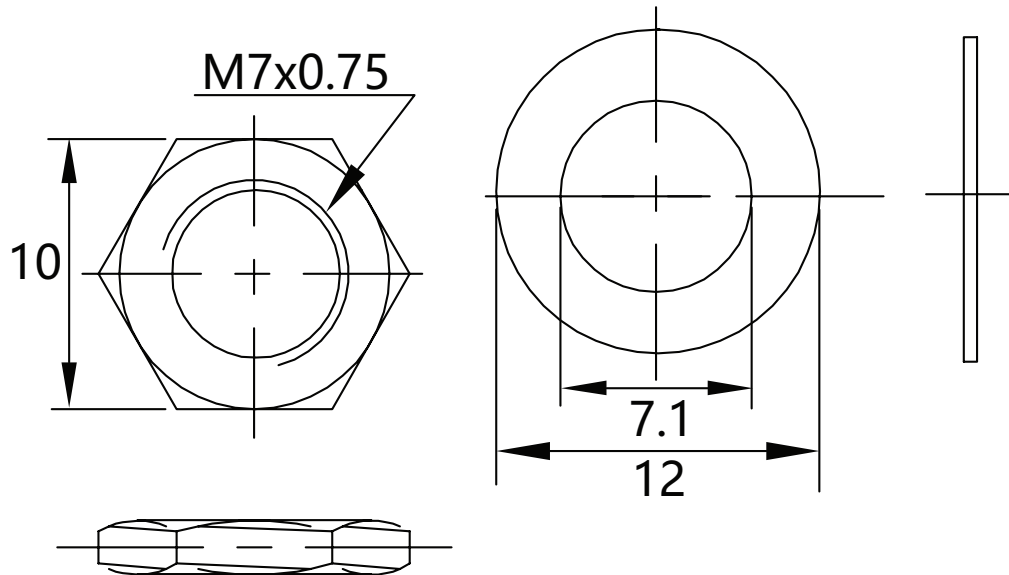
DESCRIPTION	MATERIAL
shaft	aluminum
bushing	zinc alloy
driving plate	PDM
rivet	aluminum
reed	phosphor copper
base	PBT
carbon plate	FR4 substrate
terminal	cold rolled strip
cover plate	PBT



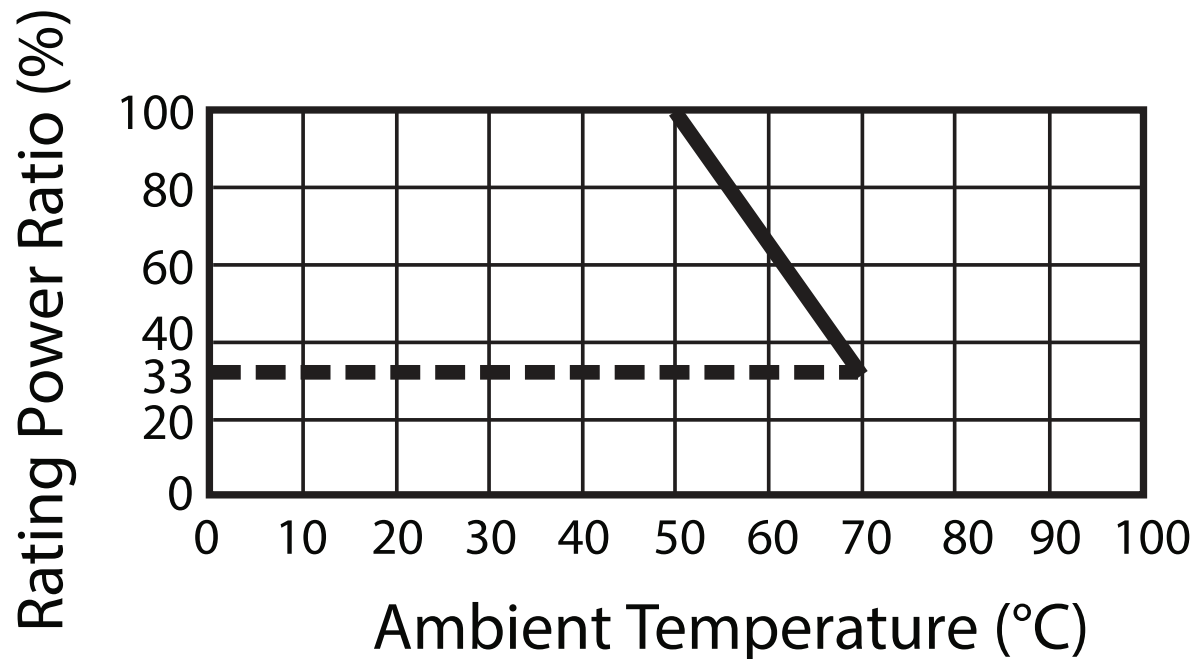
Recommended PCB Layout
Top View

MOUNTING HARDWARE

units: mm
tolerance:
X≤10.00: ±0.30 mm
unless otherwise noted



POWER DERATING CURVE



REVISION HISTORY

rev.	description	date
1.0	initial release	08/01/2024
1.01	CUI Devices rebranded to Same Sky	09/12/2024

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



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

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Same Sky 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.

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