



APPROVAL SHEET

NO : M20250218010

CUSTOMER : SPARKFUN

PRODUCT NAME : Rotary Potentiometer

CUSTOMER'S MODEL NO: _____

CUSTOMER'S REF NO : _____

ECC MODEL NO : R1210N-2B1-B10K-GP

DATE : 2025.02.18

APPROVED

Thank you very much for the interest in our products.with the samples
Please find two copies of approval sheet. Please send back one signed
Copy to us by express to the following address after having approved.



ELECTRONICS CHINA

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[Http://www.electronicschina.com](http://www.electronicschina.com)
E-mail:sales@ electronicschina.com

POTENTIOMETERS SPECIFICATIONS

A.ELECTRICAL CHARACTERISTICS

1.RESISTANCE VALUE	10K
2.RESISTANCE TOLERANCE	±20%
3.RESISTANCE TAPER	Linear (Taper B)
4.RESIDUAL RESISTANCE	$R \geq 250K \Omega$ 0.1% max.of total resistance $10K \Omega < R < 250K \Omega$ 20 Ω max. $R \leq 10K \Omega$ 10 Ω max.
5.RATED POWER	0.05W
6.MAX.OPERATING VOLTAGE	50V AC ; 20V DC
7.INSULATION RESISTANCE	100M Ω min.at 500V DC
8.WITHSTAND VOLTAGE	AC 250V (1 minute)
9.ROTATIONAL NOISE	≤100mV

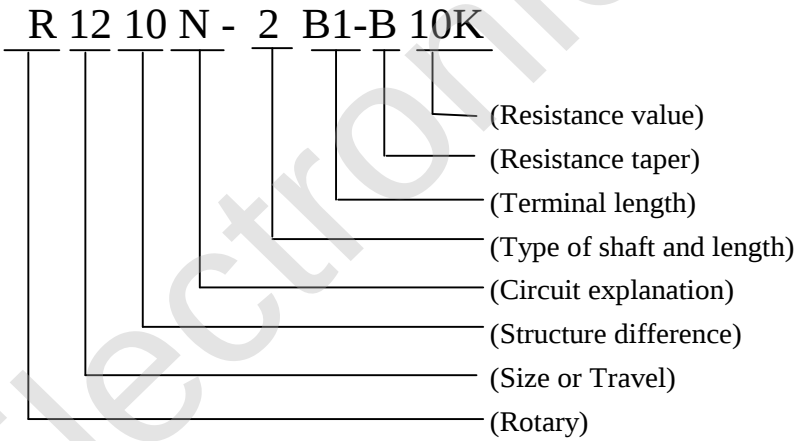
B.MECHANICAL CHARACTERISTICS

1.TOTAL ROTATIONAL ANGLE	300°±10°
2.ROTATIONAL TORQUE	20-200gf.cm
3.ROTATION STOPPER STRENGTH	3.0Kgf.cm
4.PUSH-PULL STRENGTH	8.0Kgf max

C.ENDURANCE CHARACTERISTICS

1.ROTATIONAL LIFE	>15,000 Cycles
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Remark:



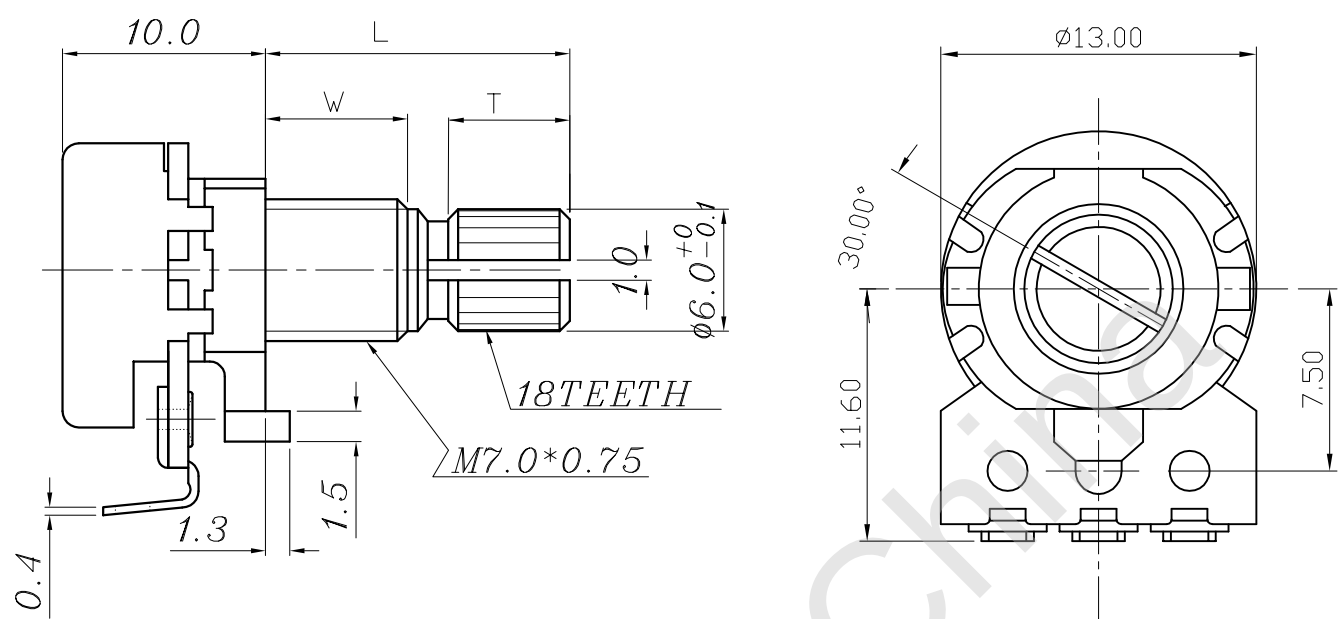
Storage Conditions:

We would recommend storage or warehousing to not exceed 6 months after receipt of shipment.Please ensure to assemble and use within this time frame. We wish to avoid the possibility these parts deviating from the original samples you have approved and that we disclaim any responsibility for any damage that might arise if you should not follow this advice.

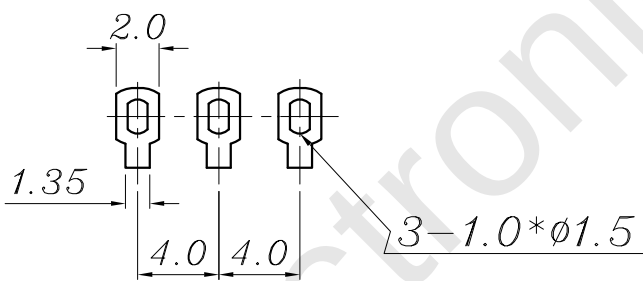
Storage Ambience:Temperature -15℃～35℃ ,Humidity 25%～75% and that harmful chemical gases to avoid contact with the parts e.g.acids,alkali etc...

ELECTRONICS CHINA		APPRO	CHECK	DESIGNER
MODEL NO	R1210N-2B1-B10K-GP			程鹏 2025.02.18
DESCRIPTION	Rotary Potentiometer			

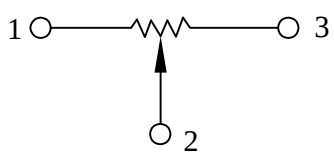
Mechanical Dimensions



Mounting Hole



Circuit Explanation



TOLERANCES UNLESS OTHERWISE SPEC	
BASIC DIMENSIONS	TOLERANCES
UP TO 10	± 0.3
ABOVE 10 TO 30	± 0.5
ABOVE 30 TO 100	± 1.0
ANGULAR DIMENSION	± 5°

KQ TYPE:

X	2	3	4		
L	15	20	25		
T	6	8	12		

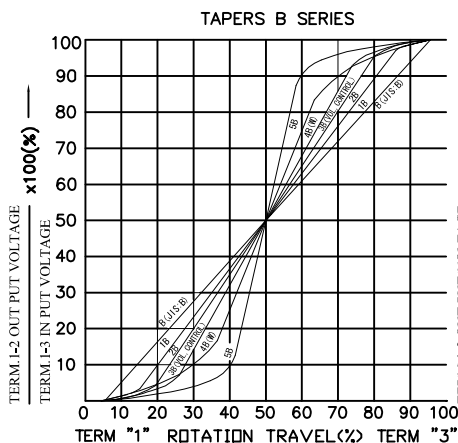
Y	1	2
W	7	5

ELECTRONICS CHINA		APPRO	CHECK	DESIGNER
MODEL NO	R12 ☐ 0N- ☐ B1-B10K-GP			程鹏 2025.02.18
DESCRIPTION	Rotary Potentiometer			

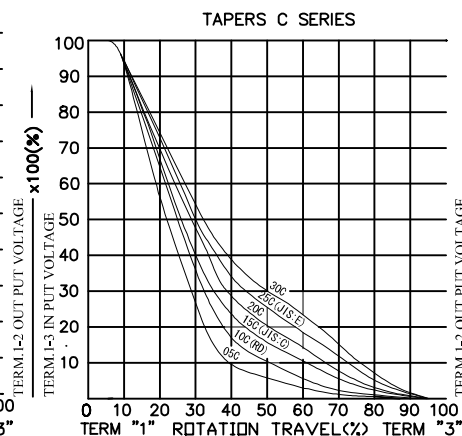
Electrical Characteristics

Resistance Taper Characteristics

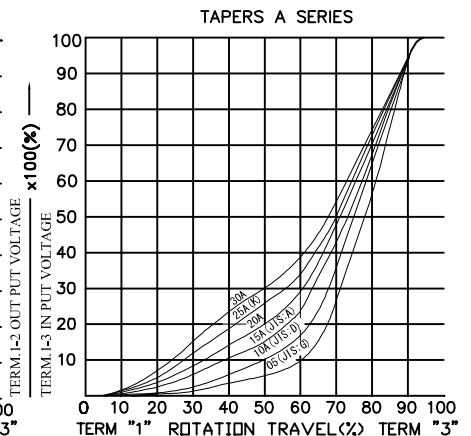
Resistance Taper Characteristic	Test Point Rotation (%)	$\frac{V1-2}{V1-3} \times 100$ (%)	$\frac{V2-3}{V1-3} \times 100$ (%)
A	60	15—30	———
B	50	40—60	———
C	60 (started from 3T)	———	15—30
D	50	2—15	———
E	50	———	15—35
M	30 (±5 degree)	5—15	———
	50	40—60	———
	70 (±5 degree)	85—95	———



☐	☐	☒	☐	☐	☐
0B	1B	2B	3B	4B	5B



☐	☐	☐	☐	☐	☐
05C	10C	15C	20C	25C	30C



☐	☐	☐	☐	☐	☐
05A	10A	15A	20A	25A	30A