

Features

- Surface Mount 3 mm Square Single-Turn Cermet / Sealed
- Compatible with surface mount manufacturing processes (not recommended for wave soldering)
- Rotor stop for "in-circuit" adjustment
- 100 cycle rotational and seal life

- Plastic housing for RF applications
- Reverse pin layout option (Model 3313X)

Position Rotor As Shown

Within ±11° Of Centerline Of Terminal 2

1

Of Terminal 2

(1)

 $\frac{0.15 \pm 0.03}{(.006 \pm .001)}$

(.146)

Position Rotor As Shown

Within ±11° Of Centerline

(.142)

ADJ. SLOT

 $(.076 \pm .001)$

1.15 TYP

(.045)

(.062)

CLOCKWISE

1.12 (.044) 2 PLCS

 $\frac{.45 \pm 0.03}{(.018 \pm .001)}$ WIDE

1.93 ± 0.03 LONG

 $\frac{.51 \pm 0.06}{(.020 \pm .002)}$ DEEP

3.61 ± .20

 $(.142 \pm .008)$

ADJ. SLOT

 52 ± 0.03 (.020 ± .001)

 $(.076 \pm .001)$

 $\times \frac{1.93 \pm 0.03}{1.93 \pm 0.03}$ LONG

 $\frac{.51 \pm 0.06}{(.020 \pm .002)}$ DEEP

WIDE

- RoHS compliant*
- Halogen free models available
- AEC-Q200 Qualified Grade 1

3313 - 3 mm Trimpot® Trimming Potentiometer

Electrical Characteristics

Standard Resistance Range10 ohms to 2 megohms (see standard resistance table) Resistance Tolerance ±20 % std. End Resistance 1 % or 3 ohms max. (whichever is greater) Contact Resistance Variation3 % or 3 ohms Adjustability Voltage Divider.....±0.1 % Rheostat.....±0.2 % Resolution Infinite Insulation Resistance 500 vdc. 100 megohms min. Dielectric Strength Sea Level...... 500 vac 70,000 Feet350 vac

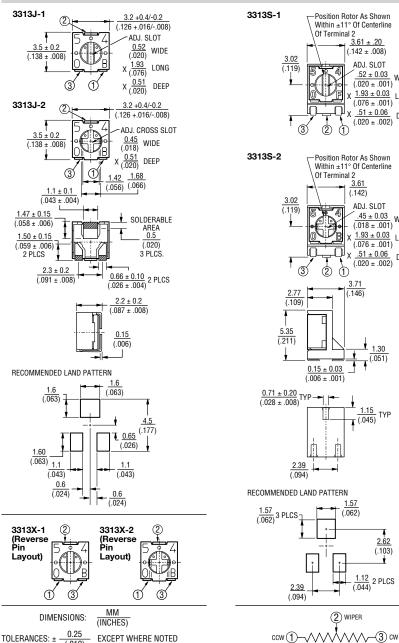
Adjustment Angle 220° nom.

Environmental Characteristics Max. Soldering Exposure250 °C/10 seconds Power Rating (200 volts max.) 70 °C0.125 watt 125 °C0 watt Operating Temp. Range-55 °C to +125 °C Temperature Coefficient≤100 ohms ±150 ppm/°C;>100 ohms ±100 ppm/°C Seal Test..85 °C Fluorinert 7/60 seconds Humidity MIL-STD 202, Method 106 (no vibration) TRS ±3 %; IR 10 megohms Vibration20 G TRS ±1 %; VRS ±1 % Shock 100 G TRS ±1 %; VRS ±1 % Load Life......1000 hours @ 70 °C Rated Power;TRS ± 3 % Rotational Life 100 cycles TRS ±3 % Thermal Shock5 cycles TRS ±2 %; VRS ±1 %

Physical Characteristics

Mechanical Angle 250 ° nom. Torque.....50 g-cm max. Stop Strength200 g-cm min. Pushover Strength ("S" Style only) 1.6 Kilograms (3.5 lbs) minimum FlammabilityU.L. 94V-0 Weight Approx. 0.01 oz. Marking.....Resistance code and date code Wiper50 % (Actual TR) ±10 % Standard Packaging J, X Styles (MSL-1)1000 pcs./7 " reel S Style (MSL-1)..... 200 pcs./7 " reel Adjustment Tool......H-91

Product Dimensions





Halogen free product is identified by a black housing color. Bourns follows the prevailing definition of "halogen free" in the industry. Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (CI) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (CI) content is 1500 ppm

†"Fluorinert" is a registered trademark of 3M Co.

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.



Features (Continued)

- See <u>processing information</u> on RoHS compliant surface mount trimmers
- For trimmer applications/processing guidelines, click here

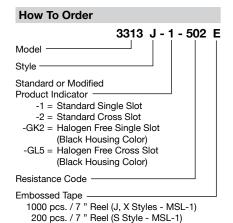
3313 - 3 mm Trimpot® Trimming Potentiometer

BOURNS

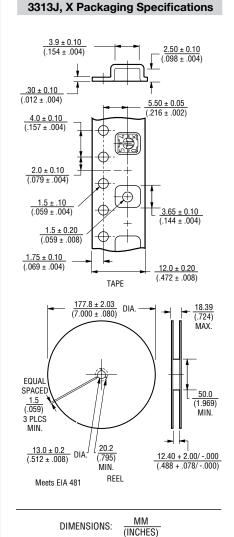
Standard Resistance Table

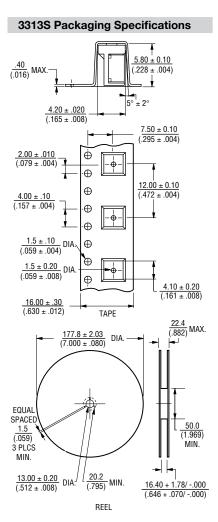
Resistance (Ohms)	Part Marking Code	Resistance Code
10	A1	100
20	21	200
50	51	500
100	A2	101
200	22	201
500	52	501
1,000	A3	102
2,000	23	202
5,000	53	502
10,000	A4	103
20,000	24	203
50,000	54	503
100,000	A5	104
200,000	25	204
500,000	55	504
1,000,000	A6	105
2,000,000	26	205

Popular distribution resistance values listed in boldface. Special resistances available.



Tape and reel material meets Antistatic ANSI/ESD 5541-2003 packaging standards.





BOURNS®

Asia-Pacific: Tel: +886-2 2562-4117 • Email: asiacus@bourns.com

Europe: Tel: +36 88 885 877 • Email: eurocus@bourns.com

The Americas: Tel: +1-951 781-5500 • Email: americus@bourns.com

www.bourns.com

REV. 08/19

"Trimpot" is a registered trademark of Bourns, Inc.

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

EXCEPT WHERE NOTED

TOLERANCES: ±

Legal Disclaimer Notice



This legal disclaimer applies to purchasers and users of Bourns® products manufactured by or on behalf of Bourns, Inc. and its affiliates (collectively, "Bourns").

Unless otherwise expressly indicated in writing, Bourns® products and data sheets relating thereto are subject to change without notice. Users should check for and obtain the latest relevant information and verify that such information is current and complete before placing orders for Bourns® products.

The characteristics and parameters of a Bourns® product set forth in its data sheet are based on laboratory conditions, and statements regarding the suitability of products for certain types of applications are based on Bourns' knowledge of typical requirements in generic applications. The characteristics and parameters of a Bourns® product in a user application may vary from the data sheet characteristics and parameters due to (i) the combination of the Bourns® product with other components in the user's application, or (ii) the environment of the user application itself. The characteristics and parameters of a Bourns® product also can and do vary in different applications and actual performance may vary over time. Users should always verify the actual performance of the Bourns® product in their specific devices and applications, and make their own independent judgments regarding the amount of additional test margin to design into their device or application to compensate for differences between laboratory and real world conditions.

Unless Bourns has explicitly designated an individual Bourns® product as meeting the requirements of a particular industry standard (e.g., ISO/TS 16949) or a particular qualification (e.g., UL listed or recognized), Bourns is not responsible for any failure of an individual Bourns® product to meet the requirements of such industry standard or particular qualification. Users of Bourns® products are responsible for ensuring compliance with safety-related requirements and standards applicable to their devices or applications.

Bourns® products are not recommended, authorized or intended for use in nuclear, lifesaving, life-critical or life-sustaining applications, nor in any other applications where failure or malfunction may result in personal injury, death, or severe property or environmental damage. Unless expressly and specifically approved in writing by two authorized Bourns representatives on a case-by-case basis, use of any Bourns® products in such unauthorized applications might not be safe and thus is at the user's sole risk. Life-critical applications include devices identified by the U.S. Food and Drug Administration as Class III devices and generally equivalent classifications outside of the United States.

Bourns expressly identifies those Bourns® standard products that are suitable for use in automotive applications on such products' data sheets in the section entitled "Applications." Unless expressly and specifically approved in writing by two authorized Bourns representatives on a case-by-case basis, use of any other Bourns® standard products in an automotive application might not be safe and thus is not recommended, authorized or intended and is at the user's sole risk. If Bourns expressly identifies a sub-category of automotive application in the data sheet for its standard products (such as infotainment or lighting), such identification means that Bourns has reviewed its standard product and has determined that if such Bourns® standard product is considered for potential use in automotive applications, it should only be used in such sub-category of automotive applications. Any reference to Bourns® standard product in the data sheet as compliant with the AEC-Q standard or "automotive grade" does not by itself mean that Bourns has approved such product for use in an automotive application.

Bourns® standard products are not tested to comply with United States Federal Aviation Administration standards generally or any other generally equivalent governmental organization standard applicable to products designed or manufactured for use in aircraft or space applications. Bourns expressly identifies Bourns® standard products that are suitable for use in aircraft or space applications on such products' data sheets in the section entitled "Applications." Unless expressly and specifically approved in writing by two authorized Bourns representatives on a case-by-case basis, use of any other Bourns® standard product in an aircraft or space application might not be safe and thus is not recommended, authorized or intended and is at the user's sole risk.

The use and level of testing applicable to Bourns® custom products shall be negotiated on a case-by-case basis by Bourns and the user for which such Bourns® custom products are specially designed. Absent a written agreement between Bourns and the user regarding the use and level of such testing, the above provisions applicable to Bourns® standard products shall also apply to such Bourns® custom products.

Users shall not sell, transfer, export or re-export any Bourns® products or technology for use in activities which involve the design, development, production, use or stockpiling of nuclear, chemical or biological weapons or missiles, nor shall they use Bourns® products or technology in any facility which engages in activities relating to such devices. The foregoing restrictions apply to all uses and applications that violate national or international prohibitions, including embargos or international regulations. Further, Bourns® products and Bourns technology and technical data may not under any circumstance be exported or re-exported to countries subject to international sanctions or embargoes. Bourns® products may not, without prior authorization from Bourns and/or the U.S. Government, be resold, transferred, or re-exported to any party not eligible to receive U.S. commodities, software, and technical data.

To the maximum extent permitted by applicable law, Bourns disclaims (i) any and all liability for special, punitive, consequential, incidental or indirect damages or lost revenues or lost profits, and (ii) any and all implied warranties, including implied warranties of fitness for particular purpose, non-infringement and merchantability.

For your convenience, copies of this Legal Disclaimer Notice with German, Spanish, Japanese, Traditional Chinese and Simplified Chinese bilingual versions are available at:

Web Page: http://www.bourns.com/legal/disclaimers-terms-and-policies

PDF: http://www.bourns.com/docs/Legal/disclaimer.pdf

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Bourns:

3313J-1-201E 3313J-1-202E 3313J-1-202G 3313S-1-203E 3313S-1-203E 3313J-1-203E 3313J-1-204E 3313S-1-204E 3313J-1-205E 3313S-1-201E 3313S-1-202E 3313S-1-101E 3313J-1-105E 3313S-1-103E 3313S-1-102E 3313J-1-103E 3313S-1-205E 3313J-1-205E 3313S-1-502E 3313S-1-502E 3313S-1-502E 3313J-1-504E 3313J-1-502G 3313J-1-201E 3313J-1-205E 3313J-2-200E 3313J-2-201E 3313J-2-201E 3313J-2-201E 3313J-2-200E 3313J