

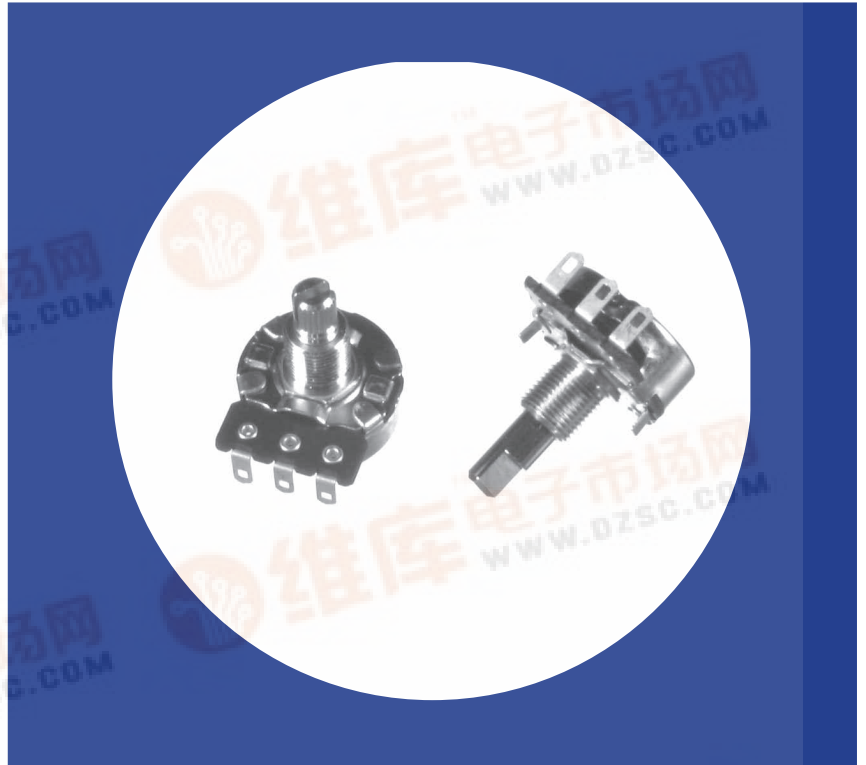


# Series 295 Technical Data

## Commercial 24mm Diameter Composition Element Long Life Variable Resistor

### Features

- Low noise
- Long life 1 million cycles
- Joystick applications
- Wide resistance range
- RoHS compliant



## Electrical and Mechanical Specifications

### Resistance Range

Linear taper: 10K ohms through 1 megohms  
Consult CTS for audio taper

### Resistance Tolerance

Standard:  $\pm 30\%$   
Special:  $\pm 20\%$ ,  $10\%$

### Power Rating

Under 100K ohms = 1/3 watt @ 55°C  
Above 100K ohms = 1/4 watt @ 55°C  
Joystick applications = 1/6 watt @ 55°C

### Insulation Resistance

100 megohms minimum @ 100 VDC

### Operating Temperature

-10°C to +85°C

### Total Rotational Angle

Mechanical angle:  $300^\circ \pm 5^\circ$   
Effective angle:  $30^\circ$  to  $290^\circ$

### Linearity

Standard: 5%  
Special: Consult CTS for better linearity

### Rotational Torque

14~144 gf-cm (0.2~2.0 in-oz)

### Rotational Life

1,000,000 cycles

### Shaft Information

Available for round, flatted, knurled, or slot metal shaft  
Diameter: 6.35mm (.250")  
Consult CTS for custom-made metal and economic plastic shaft

### Mounting Information

#### Bushing Mount

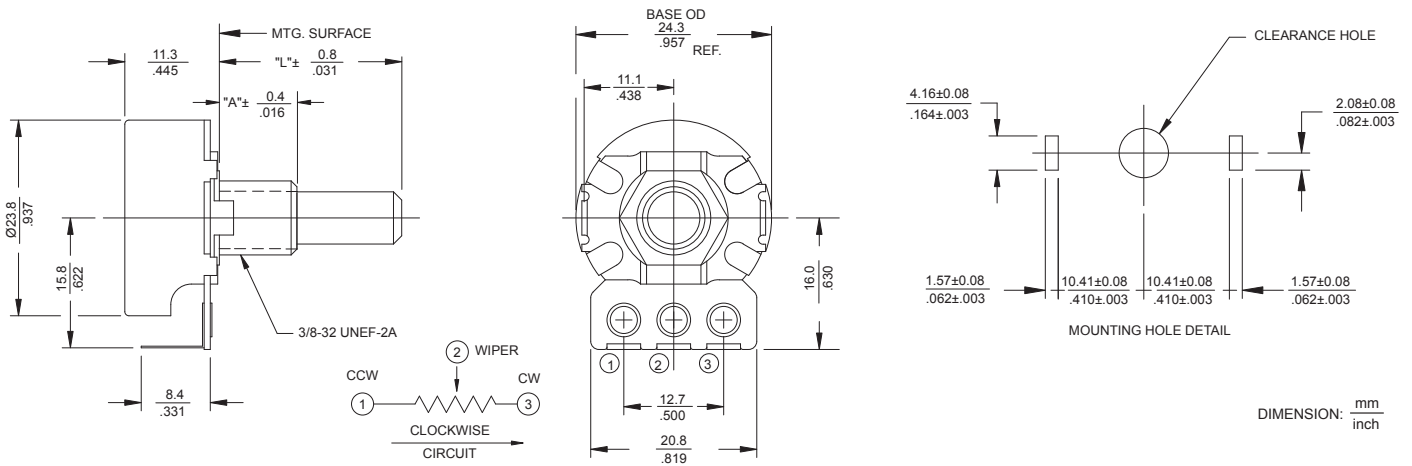
Diameter: EIA standard 3/8-32 UNEF-2A thread  
Standard length: 9.53mm (.375") or 6.35mm (.250")  
Consult CTS for custom-made metal and economic plastic bushing

### Locating Lugs

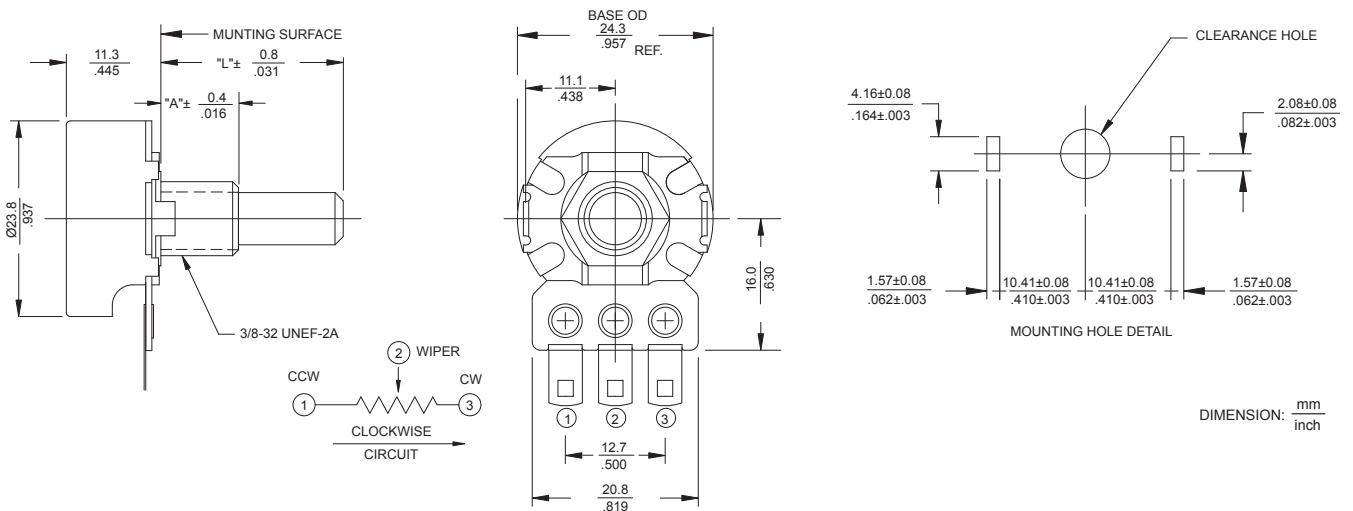
Standard: Two lugs  
Available: No lug, or one lug (left or right) with terminals facing inward



## T295 Metal Shaft, Bushing Mounting, Type "T" Solder Lug Terminals



## S295 Metal Shaft, Bushing Mounting, Faston Type "S" Formed Terminals



## Ordering Information

**295** **T** **2** **20** **R** **103** **B** **1** **1** **1**

<b>TERMINAL STYLE</b> T- SOLDER LUG S- FASTON	<b>SHAFT LENGTH "L"</b> FROM MOUNTING SURFACE 1/32" INCREMENTS EXAMPLES: 20- .625" (15.9 mm) 24- .750" (19.11mm) 28- .875" (22.2 mm) 32- 1.000" (25.4 mm)	<b>RESISTANCE CODE</b> EXAMPLES <table border="1"> <thead> <tr> <th>CODE</th> <th>RESISTANCE</th> </tr> </thead> <tbody> <tr><td>103</td><td>10 K</td></tr> <tr><td>253</td><td>25 K</td></tr> <tr><td>503</td><td>50 K</td></tr> <tr><td>104</td><td>100 K</td></tr> <tr><td>504</td><td>500 K</td></tr> <tr><td>105</td><td>1Meg</td></tr> </tbody> </table>	CODE	RESISTANCE	103	10 K	253	25 K	503	50 K	104	100 K	504	500 K	105	1Meg	<b>TAPER</b> 1- LINEAR *2- 10%AUD *3- 10%CCW AUD * Available minimum 270° effective angle.	<b>EFFECTIVE ELECTRIC ANGLE</b> 1- 40° 2- 50° 3- 60° 4- 270°
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103	10 K																	
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<b>MOUNTING STYLE "A"</b> <b>BUSHING LENGTH:</b> 1/32" INCREMENTS EXAMPLES: 2- .250" (6.35mm) 3- .375" (9.5mm) 8- 1.000" (25.4mm) 1- TWIST TAB MOUNT	<b>METAL SHAFT TRIM</b> R- ROUNDED F- FLATTED .375" X .156" (9.53 X 4.0mm) K- KNURLED EIA S148 24 TEETH S- SD SLOT .047" WIDE X .063" DEEP (1.2mm X 1.6mm)	<b>RESIST TOL</b> A- ± 10% B- ± 20% C- ± 30%	<b>SPECIALS</b> 1- TWO LUGS 2- LOCATING LUG RIGHT SIDE 3- NO LOCATING LUG 4- LOCATING LUG LEFT SIDE															