



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## Type 23 Series

### Key Features

- Versatile design can be customised to suit your requirements
- 0.4 Watt at 40°C
- Die Cast Metal Bush Available
- Insulated Bush Available
- Insulated Shafts up to 50mm
- Eyelet or PC Terminations
- Rugged Construction
- Mounting Bracket
- Audio Laws Available
- Dual Gang and Dual Concentric Styles



A popular range of 20mm control potentiometers, the type 23 series can be tailored to suit more specific requirements. The potentiometers are available with printed carbon resistance element, choice of bush lengths in metal or plastic and insulated shafts up to 50mm in length. In addition, approved mains and low current switches are available as standard options.

### Characteristics - Electrical

Resistance Range (Law):	1K to 1M (Linear) 4K7 to 470K (Non Linear)
Resistance Values:	1, 2.2 and 4.7 per decade
Resistance Tolerance:	± 20% (± 10% by selection)
Rated Dissipation at 40°C:	0.4W (Linear), 0.2W (Non Linear)
Limiting Element Voltage:	500V DC or AC RMS
Electrical Rotation:	267° without switch, 232° with switch
Terminal Resistance:	5 Ohms maximum
Noise (ENR):	2% maximum (Linear), 3% maximum (Non Linear)
Insulation Resistance:	4G minimum
Voltage Proof:	1000 V AC peak

### Characteristics - Mechanical

Operating Torque:	15 mNm maximum
Mechanical Rotation:	300°
End Stop Torque:	800 mNm maximum

### Characteristics - Environmental

Limits of Resistance Change:	15% (After 1000 hours endurance)
Operating Temperature Range:	-25°C to +70°C
Temperature Characteristics of Resistance:	5% (-55°C to 125°C)
Bump Severity:	390m/s <sup>2</sup> , 4000 Bumps
Vibration Severity:	10 - 500 Hz, 0.75mm or 98m/s <sup>2</sup>
Climatic Category:	8 days @ 36°C 82% RH R < 15%
Mechanical Endurance:	15000 Operations (minimum)

## Type 23 Series

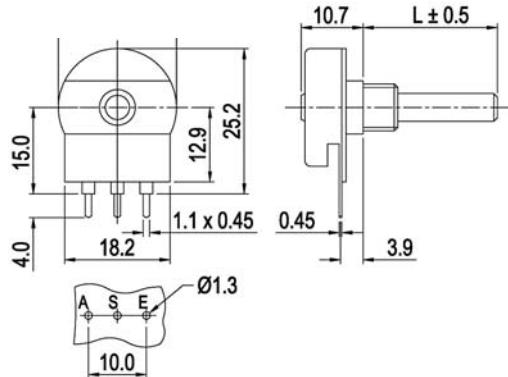
### DIY Design

The 23 Series can be customised to suit your individual requirements with features such as detent action, track centre tap etc.

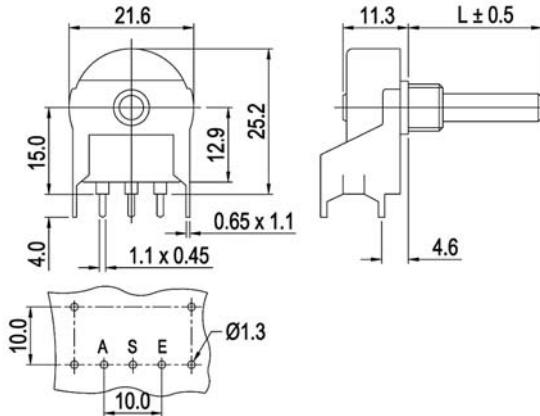
Please call our technical sales team to discuss variations on these 20mm diameter devices.

### Dimensions

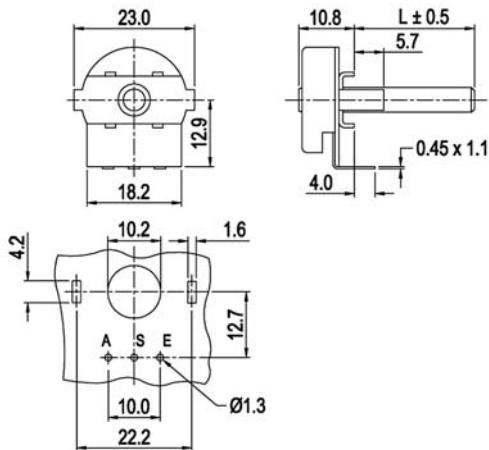
#### Type 23



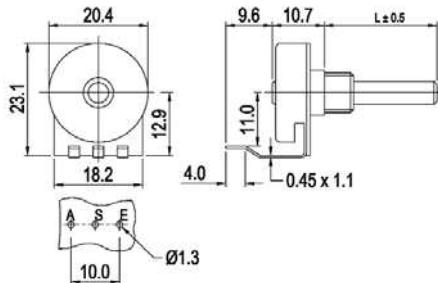
#### Type 24



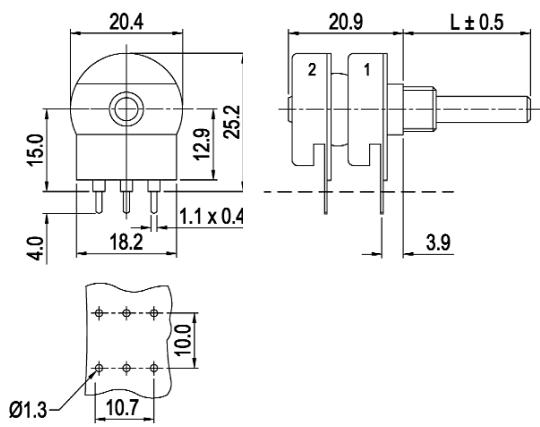
#### Type 25



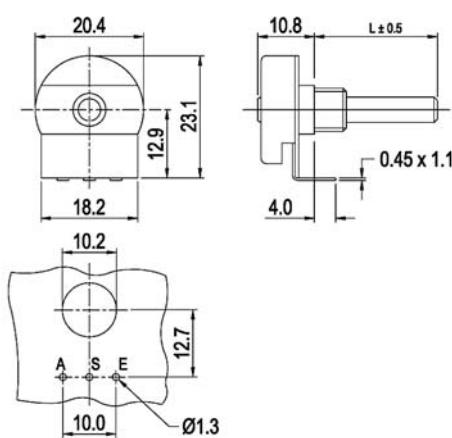
#### Type 26 (Non Switched only)



#### Type 27



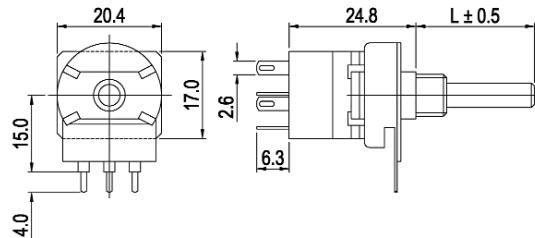
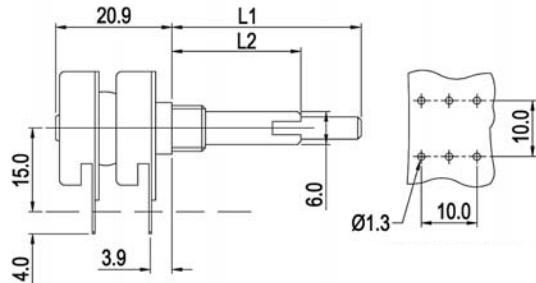
#### Type 28



## Type 23 Series

### Type 29

### Switched Types



### How to Order

23	E	X	A	104	M	L	B	22	A
<b>Potentiometer Type</b>		<b>Customer Identity</b>		<b>Resistance Value</b>		<b>Bush Details</b>		<b>Shaft Length</b>	
23 - Std Spindle Style		S - Standard		The first two digits are significant figures of resistance value and the third denotes the number of zeros following.		L - Diecast M10 x 9mm no locator, 6mm hole		FMF in mm i.e. 22mm	
24 - Standard 20mm with Mounting Bracket		X - Customer Special See Drawing (provide copy with order)		W - Diecast M10 x 9mm with locator, 6mm hole		Y - Diecast M10 x 9mm no locator, 4mm hole			
25 - No Bush - Mounting Bracket Terminations swept forward parallel to shaft		D - Special Cut and Mtd track		M - Diecast 3/8" x 8mm with location lug, 6.35mm hole		M - Diecast 3/8" x 8mm no locator, 6.35mm hole			
26 - PC Terminations swept down to board for rear mounting				K - Diecast 3/8" x 8mm no locator, 6.35mm hole		K - Diecast 3/8" x 8mm no locator, 6.35mm hole			
27 - Dual gang style single shaft same value / tol on each section				P - Diecast M7 x 6mm no locator, 4mm hole		P - Diecast M7 x 6mm no locator, 4mm hole			
28 - PC Terminations swept forward parallel to shaft				S - Insulated M10 x 7mm 6mm hole		S - Insulated M10 x 7mm 6mm hole			
29 - Dual Concentric style				T - Insulated M10 x 10mm 6mm hole		T - Insulated M10 x 10mm 6mm hole			
				U - No Bush		U - No Bush			
				F - Diecast 3/8" x 12mm 6.35mm hole		F - Diecast 3/8" x 12mm 6.35mm hole			
				G - Diecast 3/8" x 8mm no locator, 4mm hole		G - Diecast 3/8" x 8mm no locator, 4mm hole			
<b>Termination Style</b>	<b>Resistance Law</b>	<b>Resistance Tolerance</b>	<b>Shaft Style</b>	<b>Switch Details</b>					
E - Std Eyelet	A - Linear	M - 20%	A - Plain 6mm	A - DPST 4A/250V AC					
P - Std PC 15mm MH	B - Log	K - 10%	B - Slotted 6mm	B - SPST - Eyelet Termination					
R - Long PC	C - Inv. Log		C - Flatted 6mm (5mm A/F)	C - DPDT - Changeover Switch					
X - Extra long PC			D - Flatted 6mm deep flat 4mm A/F						
S - PC bend forward at 90°			E - Plain 4mm						
			F - Full 6.35mm flat - special angle						
			G - Flatted 4mm						
			H - Plain 6.35mm						
			J - Flatted 5.5mm						
			L - Flatted 6mm (4.6mm A/F)						

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