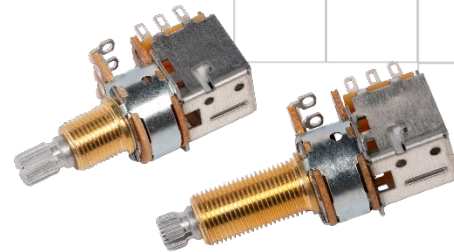


# Series 18VRG

## 18mm Guitar Potentiometer w/Push-Pull Switch

- Compact 18 mm package size
- Rotational life (15,000 cycles)
- Wide temperature range (-10°C to +70°C)
- Superb signal-to-noise output
- Short and long bushing options
- Variety of standard resistances & tapers



### Description

The Series 18VRG Guitar Potentiometer with push-pull switch is a robust high-quality guitar potentiometer that allows guitar players to have a convenient multi-function control for tone and pickup switching. Featuring reduced shaft wobble, low noise output, and smooth rotational feel, the Series 18VRG is supplied with standard tin-plated rear cover and solder lug terminals. Options include shaft and bushing lengths, shaft trim options, and a wide variety of standard resistance values and tapers to suit guitar design requirements.

### Ordering Information

Series	Terminal Style	Bushing Length	Shaft Length	Shaft Trim	Resistance Code	Detent Option	Taper																																						
18VRG	T	3	24	K	504	N	A3																																						
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## Electrical Specifications

		Min	Typical	Max	Unit
Total Resistance Tolerance		-20	-	+20	%
Power Rating	Linear output	-	+0.1	-	watt
	Audio output		+0.05		watt
Operating Voltage		-	-	+150	VAC
Residual Resistance		-	-	+2	$\Omega$
Slider Noise	R<250 k $\Omega$	-	-	+47	mV
	R $\geq$ 250 k $\Omega$			+60	mV
Insulation Resistance	500 VDC for 1 min.	+100	-	-	M $\Omega$
Dielectric Strength	500 VAC for 1 min., no arcing				
Switch Power Rating	3 VDC @ 0.3 amps				
Switch Contact Resistance	20 m $\Omega$ max.				
Taper	Linear and audio options (see charts)				

## Mechanical

Total Mechanical Travel	300° <sup>+10°</sup> / <sub>-5°</sub>
Operating Torque	20 to 300 gf-cm
Stop Strength	8 kgf-cm min.
Shaft Push-Pull Strength	10 kgf for 3 sec.
Switch Type	Push-Pull
Switch Contact Arrangement	DPDT
Switch Stroke	4 mm $\pm$ 0.8 mm
Switch Operating Force	1 kgf max.
Rotational Life	15,000 cycles
Switch Operating Life	10,000 cycles
Panel Nut Tightening Torque	10 kgf-cm
IP Rating	40
Mounting Hardware	One flat washer, one lock washer, and two mounting hex nuts supplied per unit
Packaging	Tray
Weight	15 grams

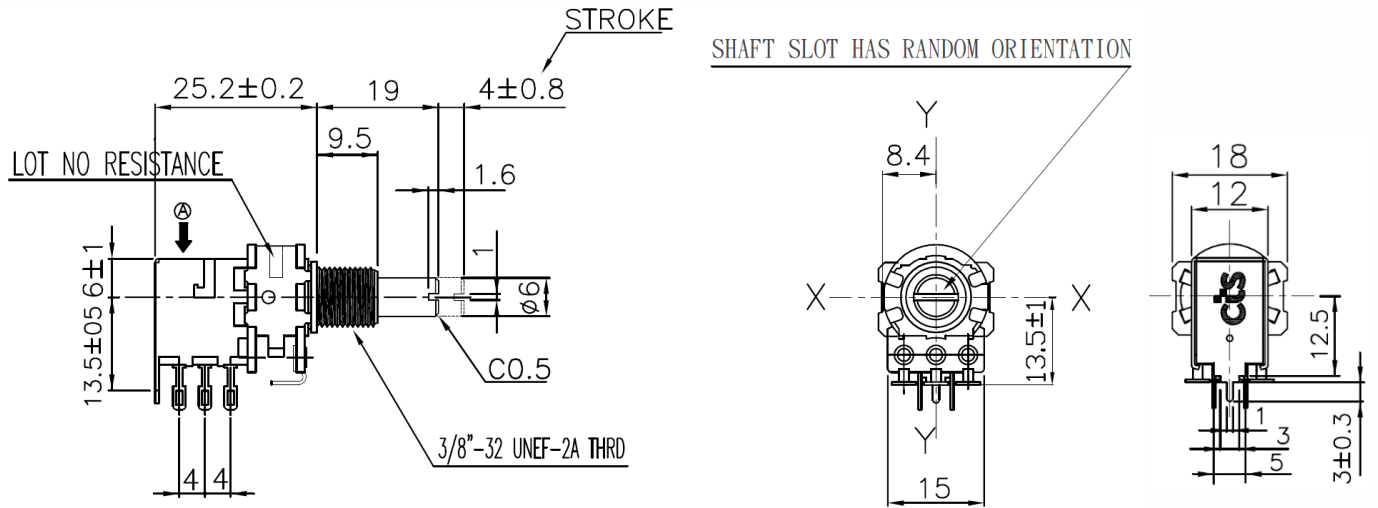
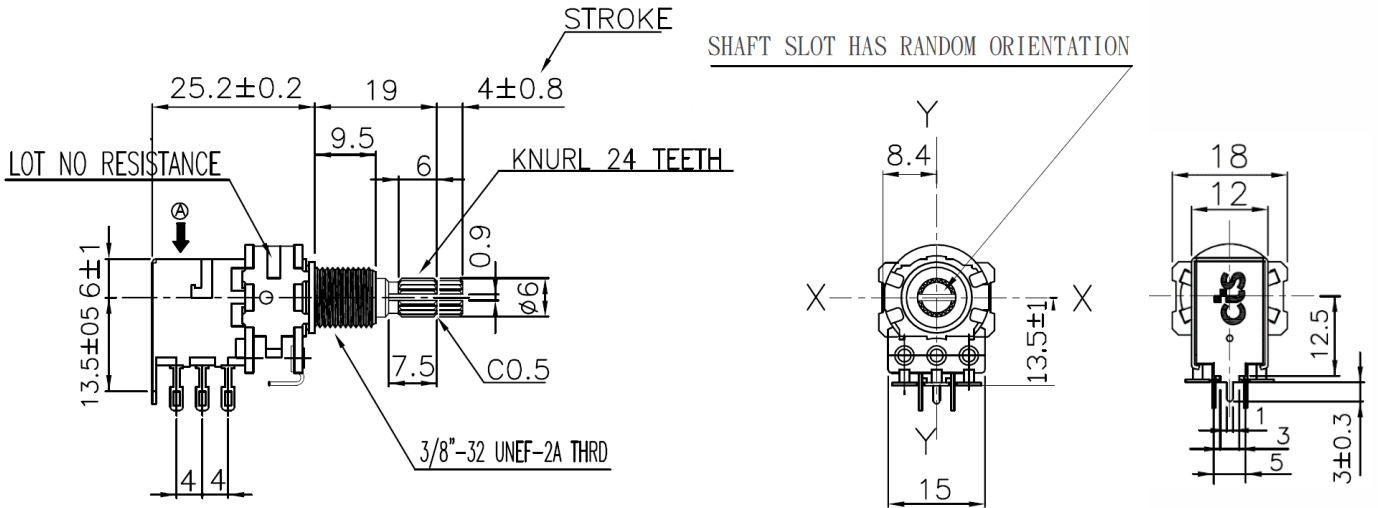
## Environmental

	Min	Typical	Max	Unit
Operating Temperature	-10	-	+70	$^{\circ}$ C
Soldering Conditions				
Wave Solder	Preheat: 100 $^{\circ}$ C max for 2 min max; Solder temperature: 260 $^{\circ}$ C $\pm$ 5 $^{\circ}$ C for 5 sec max.;			
	No clean foam flux recommended			
Manual Solder	350 $^{\circ}$ C $\pm$ 5 $^{\circ}$ C for 3 sec max.; Sn95Ag5 no clean solder			
Wash	Not recommended			
Moisture Sensitivity Level	1			
ESD Classification (HBM)	Not applicable			

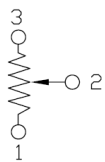
All testing is performed at room ambient conditions except as noted. Users should verify device actual performance in their specific applications  
This product is compliant to RoHS3 Directive 2015/863 Amendments of Annex II on 31 March 2015, and REACH SVHC Directive EC 1907/2006 Amendments of Annex XIV & Annex XVII on 15 January 2018.  
Custom and value-added options available on request. Please contact your sales representative for additional information.

Mechanical Specifications

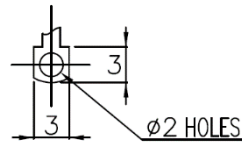
Series 18VRG Guitar Potentiometer w/Push-Pull Switch (Short Bushing)



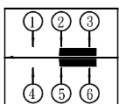
CIRCUIT DIAGRAM



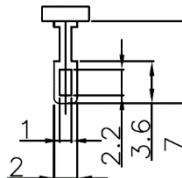
VR TERMINAL DETAIL (2/1)



SWITCH CIRCUIT (EXTENDED POSITION)



SW TERMINAL DETAIL (2/1)

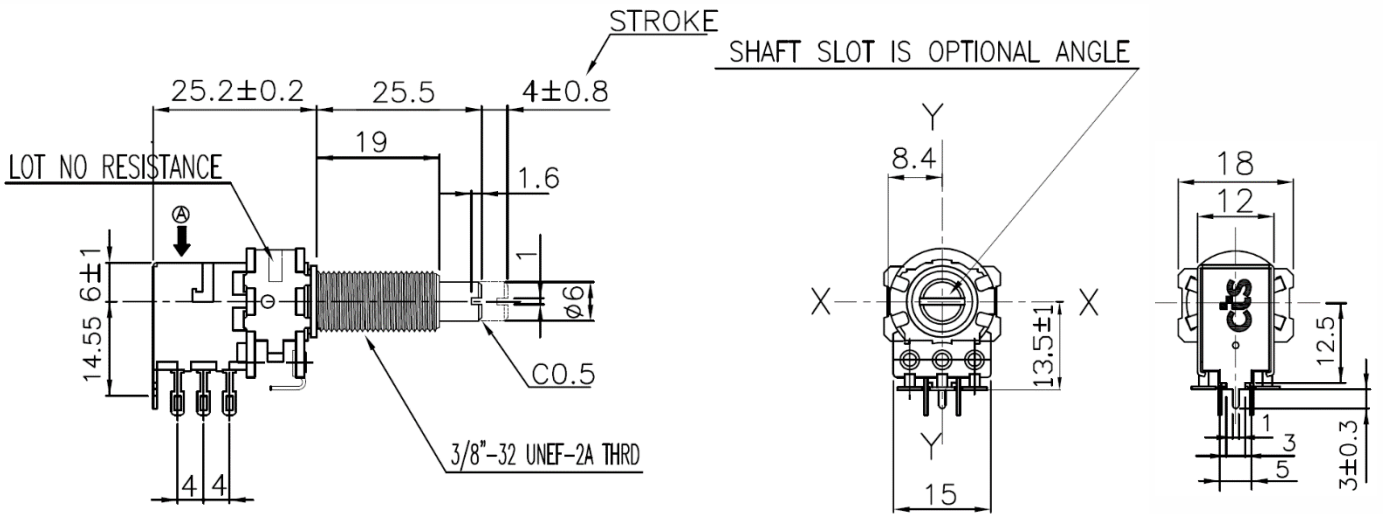
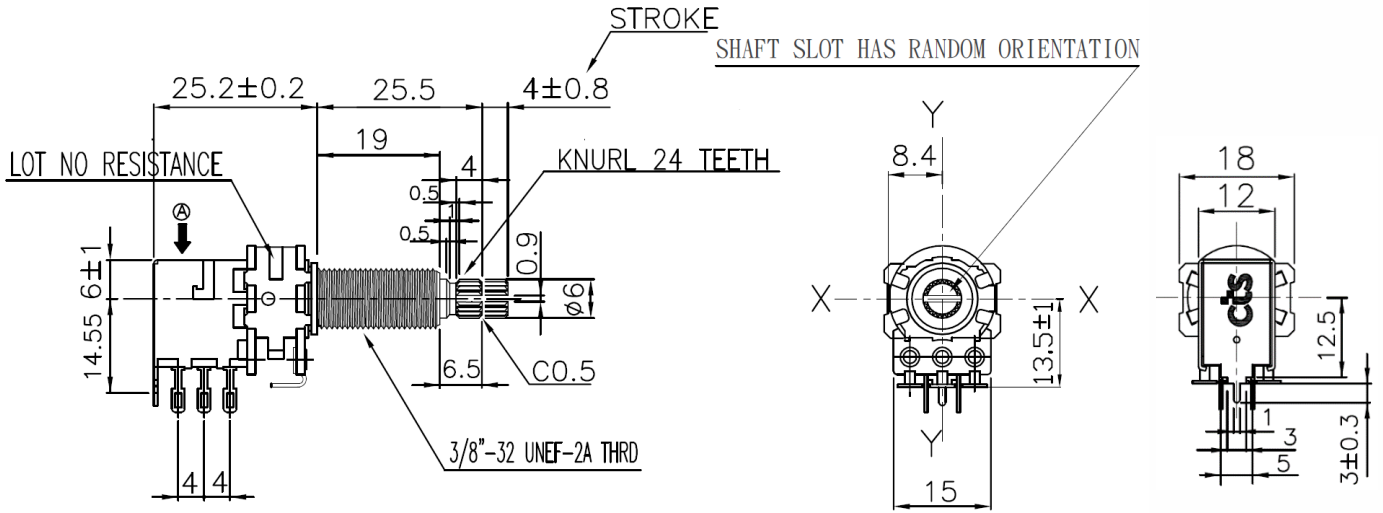


TOLERANCES UNLESS OTHERWISE SPEC	
L ≤ 10	±0.3
10 < L ≤ 100	±0.5
100 < L	±0.8
ANGULAR DIMENSION	±5°

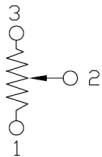
Unit: mm

Mechanical Specifications

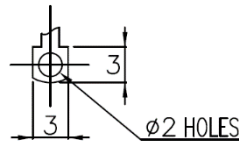
Series 18VRG Guitar Potentiometer w/Push-Pull Switch (Long Bushing)



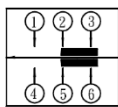
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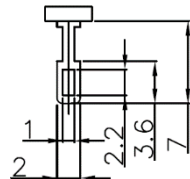
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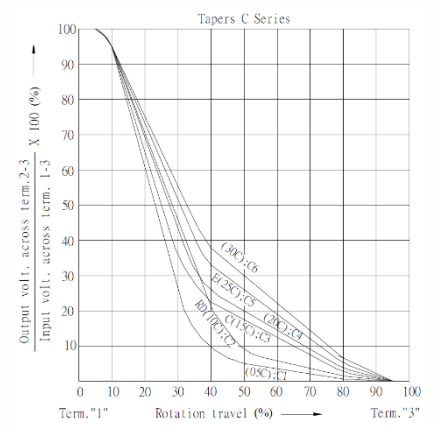
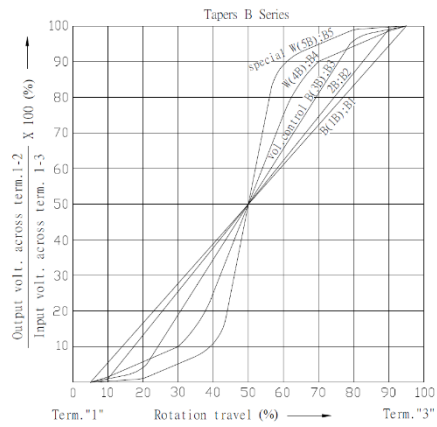
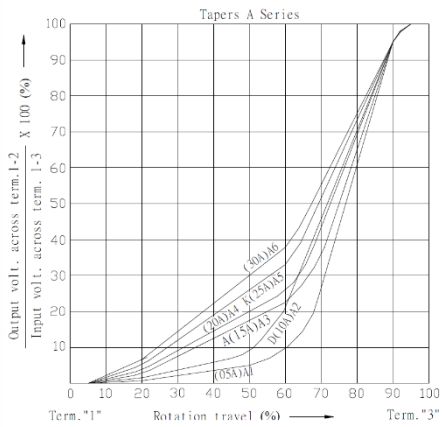
SW TERMINAL DETAIL (2/1)



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$L \leq 10$	$\pm 0.3$
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ANGULAR DIMENSION	$\pm 5^\circ$

Unit: mm

Electrical Specification  
Series 18VRG Taper Graphs



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