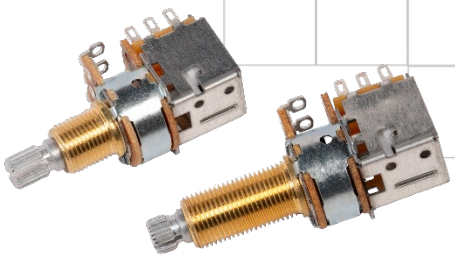
Series 18VRG

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

Code	Spec.
T	Solder Lugs

Code	Spec.
3	.375” (9.53mm)
7	.750” (19.1mm)

Diameter: 3/8”- 32UNEF-2A

Code	Spec.
24	.750” (19.1mm)
32	1.000” (25.4mm)

Diameter: .250”

Code	Spec.
K	Split Knurled (24 teeth)
S	Slotted

Code	Spec.*
203	25kΩ
503	50kΩ
254	250kΩ
304	300kΩ
504	500kΩ

**Other resistance values are available.*

Code	Spec.
N	No Detent

Code	Spec.*
A2	10% Log
A3	15% Log
B1	linear
C3	15% Antilog

**Other JIS tapers are available. See charts.*

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Electrical Specifications

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

Mechanical

Total Mechanical Travel	300° $^{+10°}/_{-5°}$
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 ± 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. Furnish with washer, lock washer and nut in separate package.
Weight	15 grams

Environmental

		Min	Typical	Max	Unit
Operating Temperature		-10	–	+70	°C
Soldering Conditions					
Wave Solder	Preheat: 100°C max for 2 min max; Solder temperature: 260°C ± 5°C for 5 sec max.; No clean foam flux recommended				
Manual Solder	350°C ± 5°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 10 June 2022.
Custom and value-added options available on request. Please contact your sales representative for additional information.

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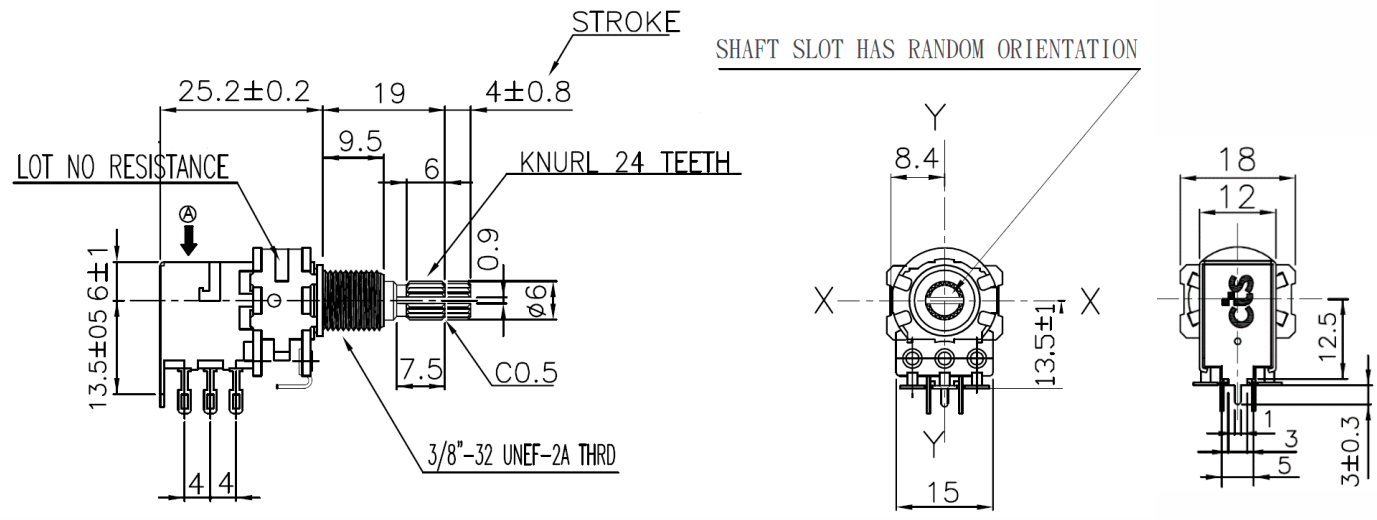
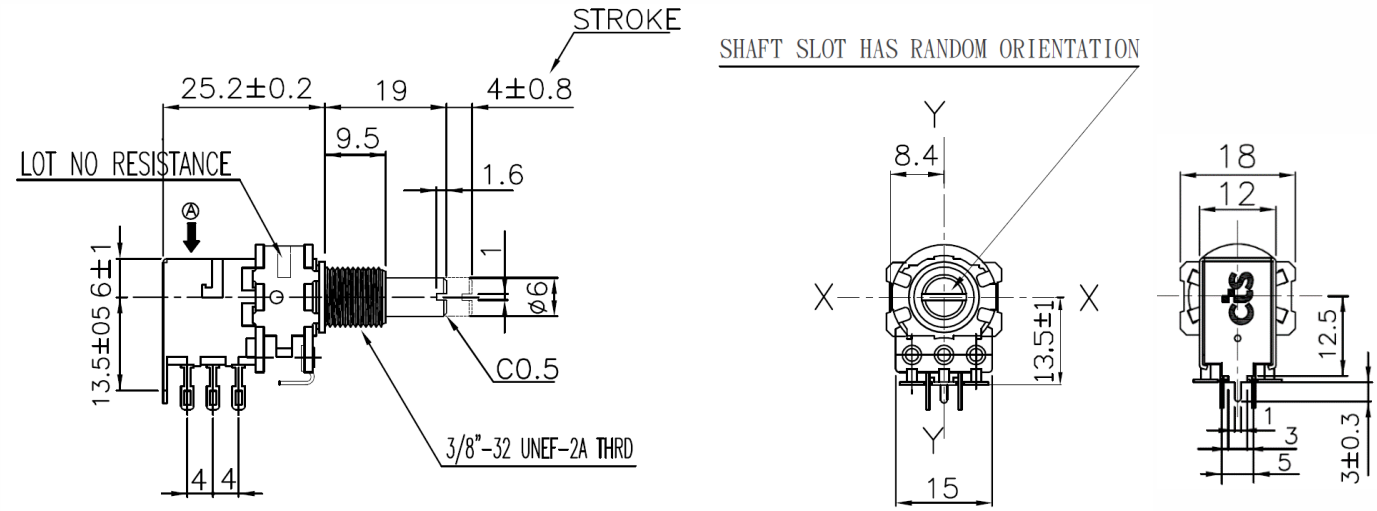
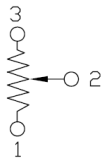
Mechanical Specifications

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

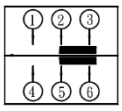




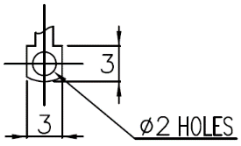
CIRCUIT DIAGRAM



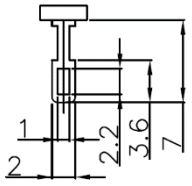
SWITCH CIRCUIT (EXTENDED POSITION)



VR TERMINAL DETAIL (2/1)



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

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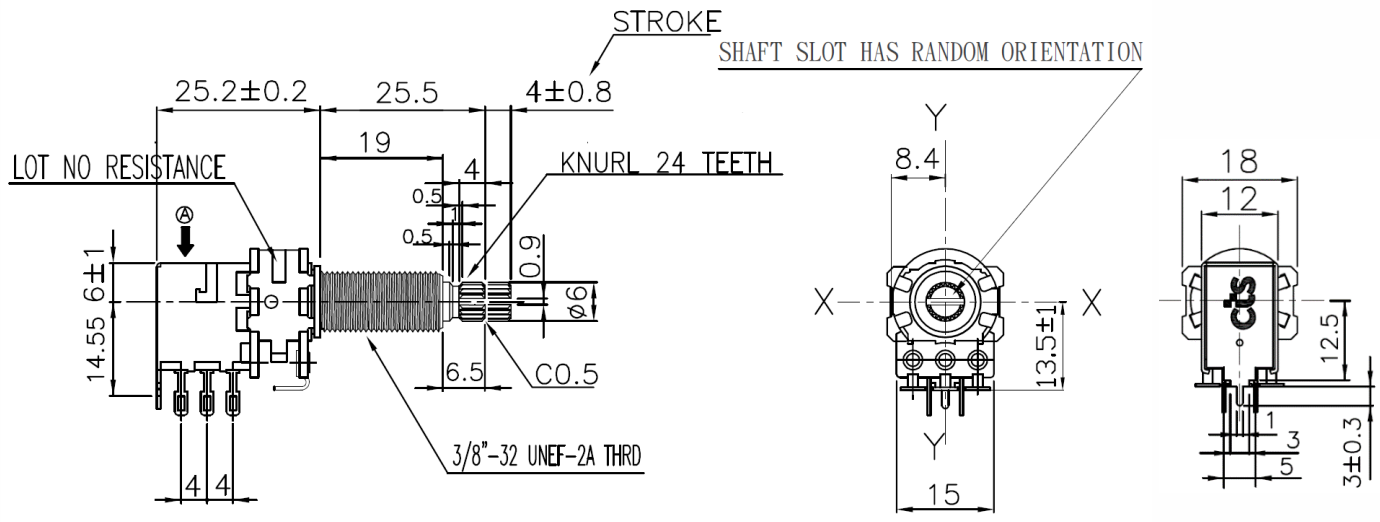
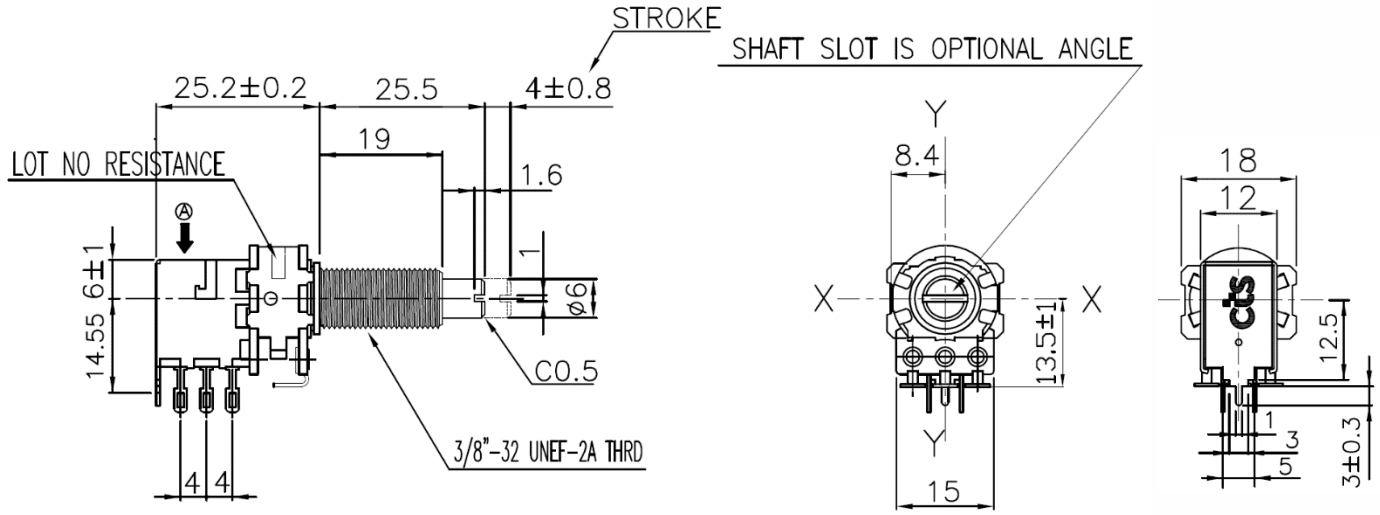
Mechanical Specifications

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





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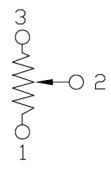

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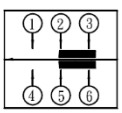
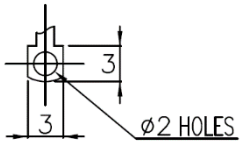
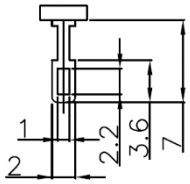


VR TERMINAL DETAIL (2/1)



SW TERMINAL DETAIL (2/1)



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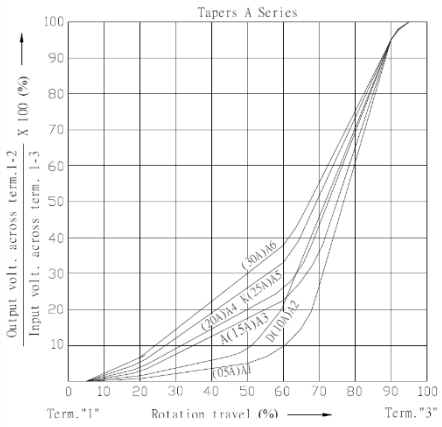
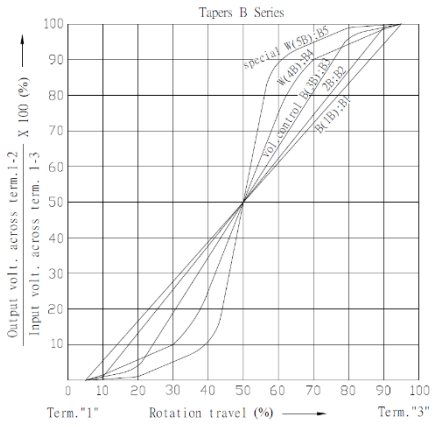
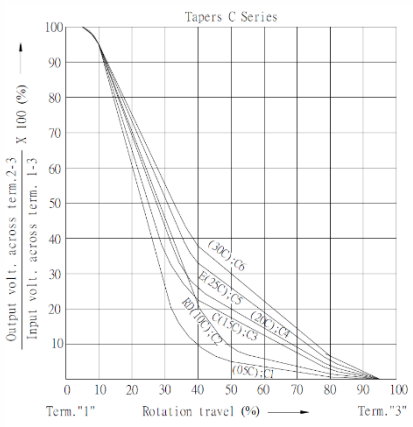
Electrical Specification

Series 18VRG Taper Graphs







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