



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!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





## Features

- Carbon element
- Assortment of resistance tapers
- Dual gang element
- Center detent option



## PTJ90 Series Dual Concentric Shaft Panel Control w/Push-Push Switch

### Electrical Characteristics

Standard Resistance Range ..... 1K ohms to 1 megohm  
 Standard Resistance Tolerance  
 R < 250K ohms ..... ±20 %  
 R ≥ 250K ohms ..... ±30 %  
 End Resistance  
 R < 50K ohms ..... 30 ohms max.  
 R ≥ 50K ohms ..... 0.1 % of TR max.  
 Insulation Resistance @ 250 VDC  
 ..... 100 megohms min.  
 Dielectric Withstanding Voltage ..... 300 VAC  
 Standard Taper ..... Linear, Audio  
 Power Rating  
 Linear ..... 0.05 watt  
 Audio ..... 0.025 watt  
 Slider Noise ..... 100 mV max.  
 Operating Voltage ..... 50 VAC / 10 VDC

### Environmental Characteristics

Operational Life ..... 15,000 cycles  
 TR Shift ..... ±15 %  
 Operating Temperature Range  
 ..... -10 °C to +55 °C  
 Resistance to Solder Heat ..... ±5 %  
 IP Rating ..... IP 40

### Mechanical Characteristics

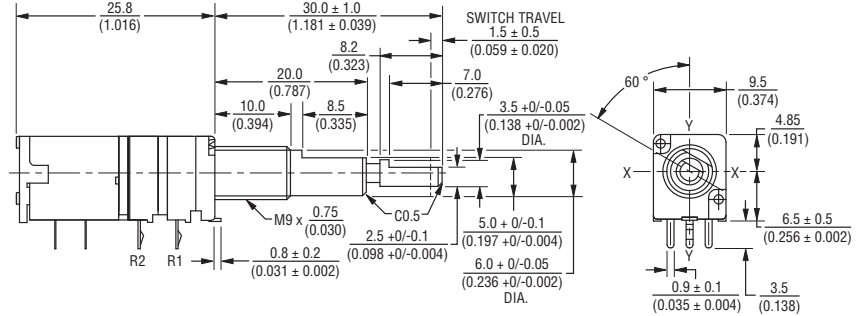
Mechanical Angle ..... 300 ° ±3 °  
 Operating Torque ..... 20~250 gf-cm  
 Stop Strength ..... 5 kgf-cm max.  
 Mounting Torque ..... 10 kgf-cm max.  
 Shaft Push/Pull Strength ..... 10 kgf max.  
 Soldering Condition  
 Manual ..... 300 °C ±5 °C for 3 sec.  
 Wave ..... 260 °C ±5 °C for 5 sec.  
 Wash ..... Not recommended  
 Hardware ..... One flat washer and  
 one mounting nut supplied with  
 each potentiometer

### Switch Characteristics

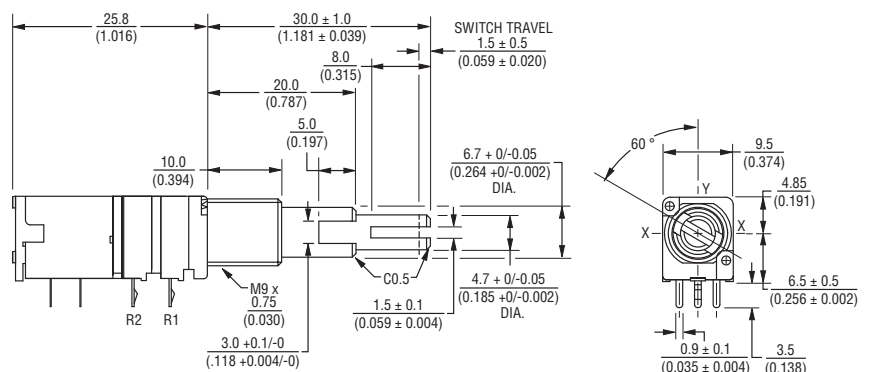
Power Rating ..... 3 A @ 16 VDC  
 Contact Resistance ..... 100 milliohms  
 Dielectric Strength  
 Bushing to Terminals ..... 300 VAC  
 Switch Terminals ..... 50 VAC  
 Insulation Resistance  
 Bushing to Terminals @ 250 VAC  
 ..... 100 megohms  
 Switch Terminals @ 50 VAC  
 ..... 10 megohms  
 Switch Type ..... Push on - Push off  
 Contact Arrangement ..... SPDT  
 Switch Stroke ..... 1.5 ± 0.1 mm  
 Operating Force ..... 2 kgf max.  
 Operating Life ..... 10,000 cycles

### Product Dimensions

#### PTJ902-xxxF

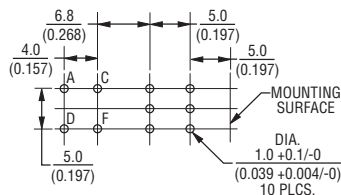


#### PTJ902-xxxS

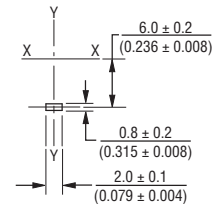


DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

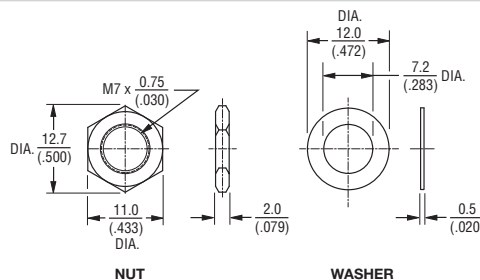
### Mounting Hole Detail



### Locating Lug Detail



### Hardware



\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.

Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time. Users should verify actual device performance in their specific applications.

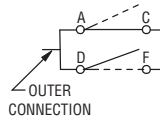
# Applications

- Multimedia sound systems
- Mixers / drums / DJ equipment
- Automotive sound systems
- Portable electronics
- Portable appliances

## PTJ90 Series Dual Concentric Shaft Panel Control w/Push-Push Switch

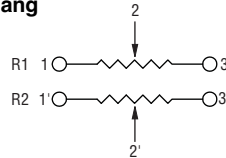


### Switch Circuit



### Schematic

#### Dual Gang



### Tapers

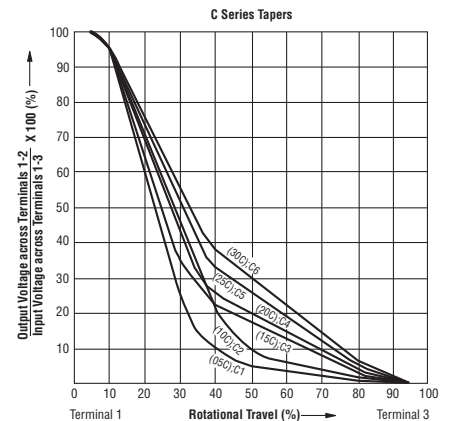
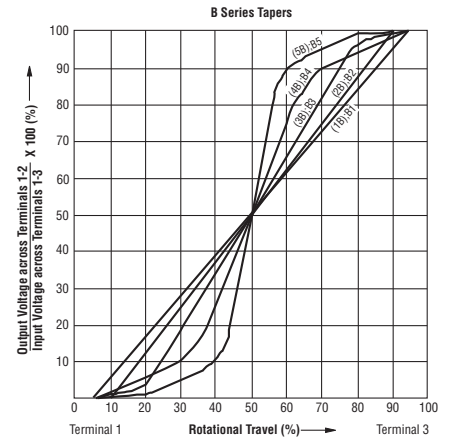
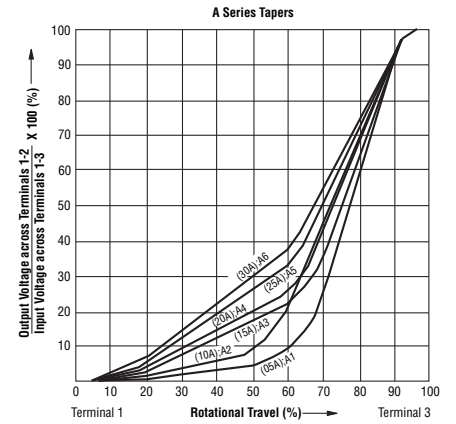
### How To Order

**PTJ90 2 - 0 30 F - 103 B2**

- Model Number
- Designator
  - PTJ90 = Dual Concentric Shaft Panel Control w/Push-Push Switch
- Number of Sections
  - 2 = Dual Gang
- Center Detent
  - 0 = No Detent
  - 1 = Center Detent
- Shaft Length (FMS)
  - 30 = 30 mm
- Shaft Style
  - F = Flatted Metal
  - S = Slotted Metal
- Resistance Code (See Standard Resistance Table)
- Resistance Taper (See Taper Charts)
  - Taper Series followed by Curve Number

### Standard Resistance Table

Resistance (Ohms)	Resistance Code
1,000	102
2,000	202
5,000	502
10,000	103
20,000	203
50,000	503
100,000	104
200,000	204
500,000	504
1,000,000	105



REV. 04/15

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