# mail

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

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#### Features

- Cost-effective R-C construction
- Insulation resistance testing for reliability
- Molded surface mount or DIP packaging
- Compatible with automatic assembly equipment
- Custom value capability

#### RoHS compliant version available ("L" part number suffix)

For information on EMI/RFI Filters, download Bourns' EMI/RFI Filters Application Note.

## 601 Series - RC Network T-Filters

#### **General Description**

Continual advances in digital IC technology are creating stringent demands on EMI/RFI levels in equipment.

**Product Dimensions** 

EMI/RFI low pass filters are required in personal computers, data terminals, test equipment and process controllers for high frequency suppression into or out of electronic equipment.

#### **Electrical Specifications - Resistors**

Standard Resistance Range*	10 ohms - 100 ohms
Series Resistance Tolerance	±10 %
Temperature Coefficient of Resistance	±300 ppm/°C
Operating Voltage	
Operating Temperatures	+10 °C to +85 °C
*Other Resistance Values Available, 10 ohms - 1 megohm	

#### **Electrical Specifications - Capacitors**

Standard Capacitance Range	
Capacitance Tolerance	±30 %
Temperature Characteristic	Z5U
Operating Temperatures	+10 °C to +85 °C
Voltage Rating	
Dielectric Withstand Voltage	2.5 x rated voltage
Insulation Resistance	

#### **Environmental Specifications - Resistors**

	ΔR MAXIMUM
Thermal Shock	±0.5 %
Resistance to Solder Heat	±0.5 %
Terminal Strength	±0.5 %

#### **Mechanical Specifications**

Flammability	Conforms to UL94 V-0
Leadframe	
Body Material	Epoxy/Novolac
Lead Solderability	Meet requirements of MIL-STD-202 Method 208

For Standard Values Used in Capacitors, Inductors, and Resistors, click here.



#### 4118R AND 4120R



Governing dimensions are metric. Dimensions in parentheses are inches and are approximate.

\*Terminal centerline to centerline measurements made at point of emergence of the lead from the body.

\*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.

## 601 Series - RC Network T-Filters

### BOURNS

#### Attenuation Vs. Frequency - Typical Capacitor Values With R= 25 Ohms



Attenuation vs. Frequency

50pF - 3dB @ 84 MHz

Attenuation vs. Frequency

Model 4120R-601-250/500 Model 4420-601-250/500

Model 4120R-601-250/201 Model 4420P-601-250/201

200pF - 3dB @ 21 MHz

○ indicates - 3dB rolloff frequency (f<sub>C</sub>)

#### **Typical Circuit**

4120R-601-RC/CC 4420R-601-RC/CC



These low-pass filters are ideal for installation between I/O drivers and RS 232 connectors.

#### How To Order EMI/RFI Filter Networks



form part number.

RC	R	CC	С
250	25	500	50 pF
270	27	101	100 pF
470	47	181	180 pF
820	82	201	200 pF
101	100		

Consult factory for values not listed.

Packages Available

4420P-601-\*RC/CC-SMD 4120R-601-\*RC/CC-DIP 4118R-601-\*RC/CC-DIP

\*First two digits are significant. Third digit represents the number of zeros to follow.

Seven circuits in an 18-pin package. Eight circuits in a 20-pin package.

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