

## Bulk Metal® Foil Technology 10 Pin Transistor Outline Hermetic Resistor Network



Product may not be to scale

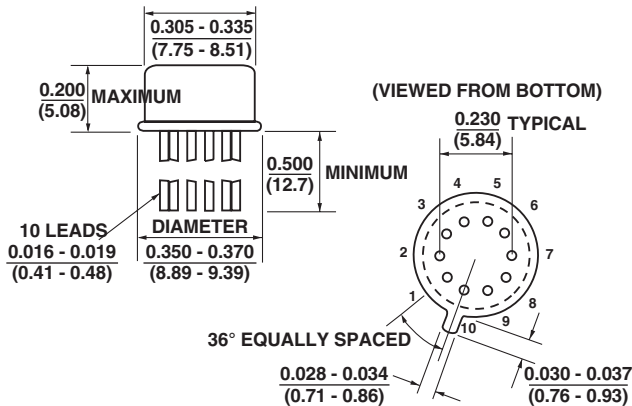
The ten pin TO-5 package, with a 0.230" pin circle is the most accommodating of the TO-5 series of networks. It has the largest R capacity of the smaller TO series. This network can contain up to 12 V5X5 resistor chips.

Review data sheet "7 Technical Reasons to Specify Bulk Metal® Foil Resistor Networks."

### ORDERING INFORMATION - 1419 PARTS

Networks are built to your requirements. Send your schematic and electrical requirements to the Applications Engineering Department. (See data sheet "Network Worksheet.") A unique part number will be assigned which defines all aspects of your network.

**FIGURE 1 - STANDARD DIMENSIONS** in inches (millimeters)



VISHAY MODEL NUMBER	CHIP CAPACITY	MAXIMUM POWER RATING (WATTS) AT + 70 °C
1419	V15X5 - 3 chips	0.4 Watt
	V5X5 - 12 chips	

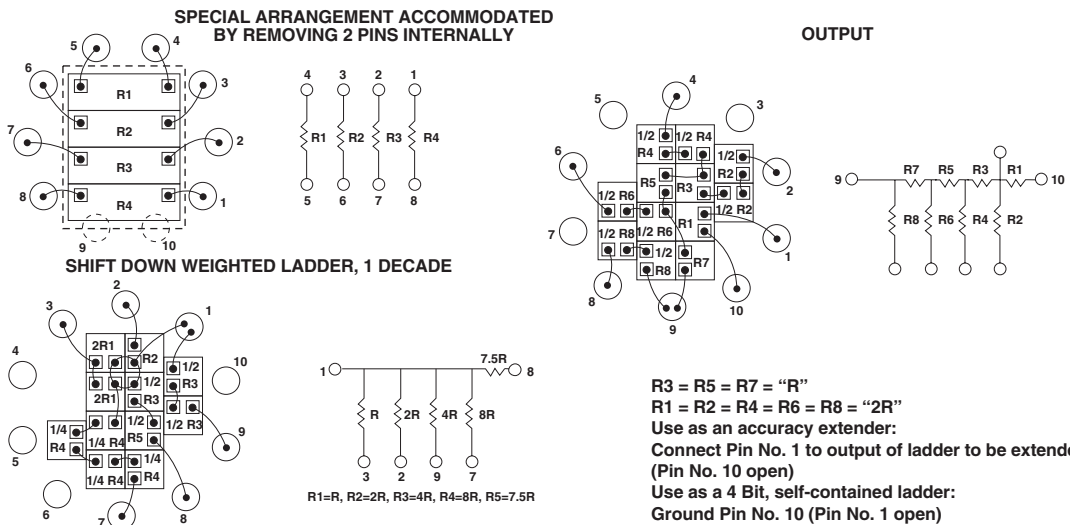
**NOTES:**

1. These networks utilize Vishay Bulk Metal® Foil resistor chips V5X5 and V15X5 or VTF15X5 Thin Film chips.
2. The V5X5 and V15X5 chips have maximum resistance values of 10K and 33K respectively in Bulk Metal® Foil and 500K in VTF15X5 Thin Film chips.
3. The V5X5 and V15X5 chip(s) can be intermixed in a package.

**FIGURE 2 - SAMPLE CIRCUIT DESIGNS AND CHIP LAYOUTS**

**NOTE:**

Usable area is represented by dotted lines - a rectangle 0.150 Inches x 0.200 Inches. Illustrations not to scale. Chips shown undersize for clarity. Drawing view is from the top looking down into the package.





## Disclaimer

ALL PRODUCTS, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Vishay Precision Group, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "VPG"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

The product specifications do not expand or otherwise modify VPG's terms and conditions of purchase, including but not limited to, the warranty expressed therein.

VPG makes no warranty, representation or guarantee other than as set forth in the terms and conditions of purchase. **To the maximum extent permitted by applicable law, VPG disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.**

Information provided in datasheets and/or specifications may vary from actual results in different applications and performance may vary over time. Statements regarding the suitability of products for certain types of applications are based on VPG's knowledge of typical requirements that are often placed on VPG products. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. You should ensure you have the current version of the relevant information by contacting VPG prior to performing installation or use of the product, such as on our website at [vpgsensors.com](http://vpgsensors.com).

No license, express, implied, or otherwise, to any intellectual property rights is granted by this document, or by any conduct of VPG.

The products shown herein are not designed for use in life-saving or life-sustaining applications unless otherwise expressly indicated. Customers using or selling VPG products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify VPG for any damages arising or resulting from such use or sale. Please contact authorized VPG personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.

Copyright Vishay Precision Group, Inc., 2014. All rights reserved.