# Bulk Metal ${ }^{\circledR}$ 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 V 5 X 5 resistor chips.
Review data sheet "7 Technical Reasons to Specify Bulk Metal ${ }^{\circledR}$ 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 <br> MODEL NUMBER | CHIP <br> CAPACITY | MAXIMUM POWER RATING <br> (WATTS) @ $+70^{\circ} \mathbf{C}$ |
| :--- | :---: | :---: |
| 1419 | V15X5-3 chips | 0.4 Watt |
|  | V5X5 -12 chips |  |

## NOTE:

1. These networks utilize Vishay Bulk Metal ${ }^{\circledR}$ Foil resistor chips V5X5 and V15X5 or VTF15X5 Thin Film chips.
2. The V5X5 and V15X5 chips have maximum resistance values of 10 K and 33 K respectively in Bulk Metal ${ }^{\circledR}$ 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 $\times 0.200$ Inches. Illustrations not to scale. Chips shown undersize for clarity. Drawing view is from the top looking down into the package.

SPECIAL ARRANGEMENT ACCOMMODATED
BY REMOVING 2 PINS INTERNALLY
OUTPUT

$\mathrm{R} 3=\mathrm{R} 5=\mathrm{R} 7=$ "R"
$\mathrm{R} 1=\mathrm{R} 2=\mathrm{R} 4=\mathrm{R} 6=\mathrm{R} 8=" 2 \mathrm{R} "$
Use as an accuracy extender:
Connect Pin No. 1 to output of ladder to be extended (Pin No. 10 open)
Use as a 4 Bit, self-contained ladder:
Ground Pin No. 10 (Pin No. 1 open)

VISHAY FOIL • FRANCE +33.4.93.37.28.24 FAX: +33.4.93.37.27.31 - GERMANY +49.9287.710 FAX: +49 9287.70435 - ISRAEL +972.3.557.0945 FAX: +972.3.558.9121

- JAPAN +81.42.729.0661 FAX: +81.42.729.3400
- SINGAPORE +65.788.6668 FAX: +65.788.0988
- SWEDEN +46.8.594.70590 FAX: +46.8.594.70581 - UK +44 1915148237 FAX: +44 1953457722
- USA +1 610 407-4800 FAX: +1 610 640-9081

