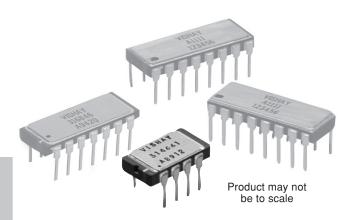
## Vishay Foil Resistors



# **Bulk Metal<sup>®</sup> Foil Technology Dual-In-Line Hermetic Resistor Networks**

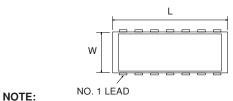


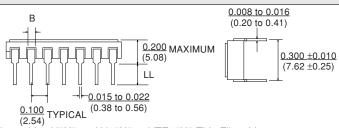
Vishay Model 1442, 1445 and 1446 networks incorporate all the performance features of Vishay Bulk Metal® Foil technology. The 8, 14 and 16 pin side brazed DIPs are a ceramic package. Ceramic has the advantage of electrical isolation on the underside, and, in DIP form, a favorable pin arrangement when two networks are to be placed side by side and connected together.

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

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 - PACKAGE SIZES AND CHARACTERISTICS





- These networks utilize Vishay Bulk Metal® Foil resistor chips V5X5 and V15X5 or VTF15X5 Thin Film chips.
- 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.
- The V5X5 and V15X5 chip(s) can be intermixed in a package.

VISHAY MODEL	NO. OF PINS	MAXIMUM DIMENSIONS in Inches (mm)				CHIP CAPACITY		MAXIMUM POWER RATING
		L	W	В	LL	V5X5	V15X5	
1442	8	0.520 ±0.020 (13.21 ±0.51)	0.295 ±0.010 (7.49 ±0.025)	0.054 (1.37)	0.125 minimum (3.18)	12	4	0.4
1445	14	0.740 ±0.045 (18.80 ±1.14)	0.270 +0.035/-0.030 (6.86 +0.89/-0.76)	0.046 (1.17)	0.135 +0.015/-0.010 (3.43 +0.38/-0.25)	30	10	1.2
1446	16	0.780 ±0.030 (19.81 ±0.76)	0.290 ±0.008 (7.37 ±0.20)	0.040 to 0.070 (1.01 to 1.78)	0.135 +0.015/-0.010 (3.43 +0.38/-0.25)	36	12	1.4

### FIGURE 2 - SAMPLE CIRCUIT DESIGN AND CHIP LAYOUT NOTE: Usable area is represented by the dotted lines— a rectangle Þ • 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. $^{(ullet)}$ (ullet)

- 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
- ITALY + 39 2 300 11919 FAX: +39 2 300 11999 • 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 +44 191 514 8237 FAX: +44 1953 457 722
- USA +1 610 407-4800 FAX: +1 610 640-9081



### Bulk Metal® Foil Technology Dual-In-Line Hermetic Resistor Networks

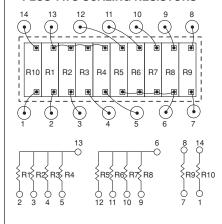
## Vishay Foil Resistors

### FIGURE 3 - SAMPLE CIRCUIT DESIGNS AND CHIP LAYOUTS

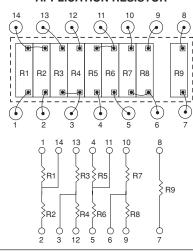
#### NOTE:

Usable area is represented by the dotted lines— a rectangle 0.150 Inches x 0.500 Inches. Illustrations not to scale. Chips shown undersize for clarity. Drawing view is from the top looking down into the package.

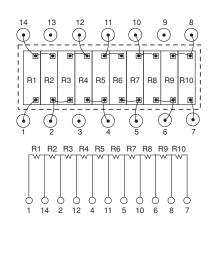
#### TWO DECADES OF BCD LADDER **PLUS TWO SCALING RESISTORS**



#### **FOUR DIVIDERS PLUS** APPLICATION RESISTOR



### **TEN RESISTOR DIVIDER**



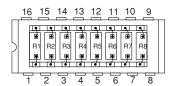
#### FIGURE 4 - SAMPLE CIRCUIT DESIGNS AND CHIP LAYOUTS

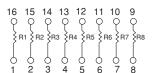
Usable area is represented by the dotted lines— a rectangle 0.150 Inches x 0.600 Inches. Illustrations not to scale. Chips shown undersize for clarity. Drawing view is from the top looking down into the package.

**ELEVEN RESISTOR DIVIDER** 



**EIGHT RESISTOR PACKAGE** 





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
- ITALY + 39 2 300 11919 FAX: +39 2 300 11999
- 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 +44 191 514 8237 FAX: +44 1953 457 722
- USA +1 610 407-4800 FAX: +1 610 640-9081