VSM85, 86, 87, 88, 89

Vishay Foil Resistors

L

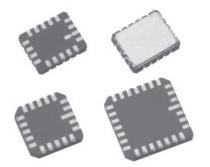
M

H

525



Bulk Metal[®] Foil Technology Surface Mount Hermetic Resistor Networks In Leadless Chip Carrier (LCC) Configuration



Vishay Model VSM networks incorporate all the performance features of Vishay Bulk Metal[®] Foil technology in a product ready for surface mounting. The multi-terminal ceramic LCC has gold plated terminals which wrap around from the side of the package to the underside for either socket or surface mounting. See data sheet "7 Technical Reasons to Specify Bulk Metal[®] Foil Resistor Networks".

ORDERING INFORMATION - VSM85, VSM86, VSM87, VSM88 OR VSM89 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.

Product may not be to scale

100 45) REFERENCE

0.025 C

TYPICAL

ПГ

0.050

0.012 (0.30)^R REF TYPICAL (1.27)

FIGURE 1 - PACKAGE SIZES AND CHARACTERISTICS

0.050 (1.27)

NOTES:

1. These networks utilize Vishay Bulk Metal^ $\ensuremath{\mathbb{S}}$ 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.

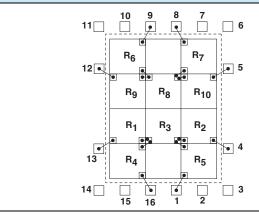
3. The V5X5 and V15X5 chip(s) can be intermixed in a package.

VISHAY NO. OF MODEL PINS	MAXIMUM DIMENSIONS IN INCHES (MM)				CHIP CAPACITY		MAXIMUM POWER RATING
	L	w	н	LL	V5X5	V15X5	(WATTS) AT + 70 °C
16	0.295 (7.493)	0.360 (9.144)	0.090 (2.286)	N/A	12	4	0.4
20 24	0.360 (9.144) 0.345 (8.763)	0.360 (9.144) 0.345 (8.763)	0.090 (2.286) 0.090 (2.286)	N/A N/A	16 16	4 5	0.6 0.6
28	0.460 (11.684)	0.460 (11.684)	0.090 (2.286)	N/A	25	10	1.0 1.4
	PINS 16 20 24	PINS L 16 0.295 (7.493) 20 0.360 (9.144) 24 0.345 (8.763) 28 0.460 (11.684)	PINS L W 16 0.295 (7.493) 0.360 (9.144) 20 0.360 (9.144) 0.360 (9.144) 24 0.345 (8.763) 0.345 (8.763) 28 0.460 (11.684) 0.460 (11.684)	PINS L W H 16 0.295 (7.493) 0.360 (9.144) 0.090 (2.286) 20 0.360 (9.144) 0.360 (9.144) 0.090 (2.286) 24 0.345 (8.763) 0.345 (8.763) 0.090 (2.286) 28 0.460 (11.684) 0.460 (11.684) 0.090 (2.286)	PINS L W H LL 16 0.295 (7.493) 0.360 (9.144) 0.090 (2.286) N/A 20 0.360 (9.144) 0.360 (9.144) 0.090 (2.286) N/A 24 0.345 (8.763) 0.345 (8.763) 0.090 (2.286) N/A 28 0.460 (11.684) 0.090 (2.286) N/A	PINS L W H LL V5X5 16 0.295 (7.493) 0.360 (9.144) 0.090 (2.286) N/A 12 20 0.360 (9.144) 0.360 (9.144) 0.090 (2.286) N/A 16 24 0.345 (8.763) 0.345 (8.763) 0.090 (2.286) N/A 16 28 0.460 (11.684) 0.460 (11.684) 0.090 (2.286) N/A 25	PINS L W H LL V5X5 V15X5 16 0.295 (7.493) 0.360 (9.144) 0.090 (2.286) N/A 12 4 20 0.360 (9.144) 0.360 (9.144) 0.090 (2.286) N/A 16 4 24 0.345 (8.763) 0.345 (8.763) 0.090 (2.286) N/A 16 5 28 0.460 (11.684) 0.460 (11.684) 0.090 (2.286) N/A 25 10

0.025 (0.64) TYPICAL

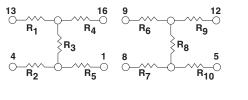
0.008 REFERENCE (0.20) TYPICAL

FIGURE 2 - SAMPLE CIRCUIT DESIGN AND CHIP LAYOUT



NOTE:

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





Vishay Precision Group

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, "Vishay Precision Group"), 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 Vishay Precision Group's terms and conditions of purchase, including but not limited to, the warranty expressed therein.

Vishay Precision Group 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, Vishay Precision Group 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 Vishay Precision Group's knowledge of typical requirements that are often placed on Vishay Precision Group 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.

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

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