Carbon Film (Metal Alloy) Resistors, Special Purpose, High Voltage

MATERIAL SPECIFICATIONS

Element: metal alloy

Core: alkaline earth porcelain

FEATURES

- HVW and MVW are uncoated; HVX (blue flameproof coating) available on request
- High voltage (up to 7.5 kV)
- Semi-precision: ± 5 %, ± 10 %, ± 20 %
- Axial leads: HVW, HVX = Tinned copper
  MVW = Copper clad steel
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb-free Available

RoHS* Available

Note

* This datasheet provides information about parts that are RoHS-compliant and / or parts that are non-RoHS-compliant. For example, parts with lead (Pb) terminations are not RoHS-compliant. Please see the information / tables in this datasheet for details.

STANDARD ELECTRICAL SPECIFICATIONS

GLOBAL MODEL	HISTORICAL MODEL	POWER RATING $P_{70\,°C}$ W	MAXIMUM WORKING VOLTAGE (2) V	RESISTANCE RANGE (2) Ω	TOLERANCE ± %
HVW1/2	HVW-1/2	1.0	3.5K	1K to 25M	5, 10, 20
HVX1/2	HVX-1/2	1.0	3.5K	1K to 25M	5, 10, 20
MVW1/2	MVW-1/2	1.0	3.5K	1K to 25M	5, 10, 20
HVW3/4	HVW-3/4	1.5	7.5K	1K to 50M	5, 10, 20
HVX3/4	HVX-3/4	1.5	7.5K	1K to 50M	5, 10, 20
MVW3/4	MVW-3/4	1.5	7.5K	1K to 50M	5, 10, 20

Notes

(1) All resistance values are calibrated at 100 V_{DC}. Calibration at other voltages upon request.

(2) Continuous working voltage shall be $\sqrt{P \times R}$ or maximum working voltage, whichever is less.

GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: HVW1/226K40KLB (preferred part numbering format)

H	V	W	1	/	2	2	6	K	4	0	K	L	B			

GLOBAL MODEL	RESISTANCE VALUE	TOLERANCE CODE	PACKAGING CODE (1)(2)	SPECIAL
(see Standard Electrical Specifications table)	**K** = kΩ **M** = MΩ **1K000** = 1.0 kΩ **47K00** = 47 kΩ **50M** = 50 MΩ	**J** = ± 5 % **K** = ± 10 % **M** = ± 20 %	**EL** = lead (Pb)-free, lacer **EK** = lead (Pb)-free, bulk **EE** = lead (Pb)-free, reel **LB** = tin/lead, lacer **BJ** = tin/lead, bulk **RC** = tin/lead, reel	Blank = standard (dash number) (up to 3 digits) from **1 to 999** as applicable

Historical Part Number example: HVW-1/2 26.4K 10 % (will continue to be accepted)

HVW-1/2	26.4K	10 %	L05
HISTORICAL MODEL	RESISTANCE VALUE	TOLERANCE CODE	PACKAGING

Notes

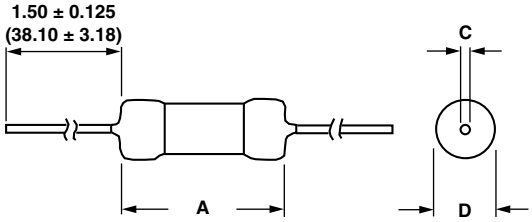
(1) MVW products do not contain lead. Use tin/lead packaging codes to specify these lead free MVW products. Use lead (Pb)-free packaging codes to specify lead (Pb)-free HVW and HVX products.

(2) Some packaging codes are model specific.

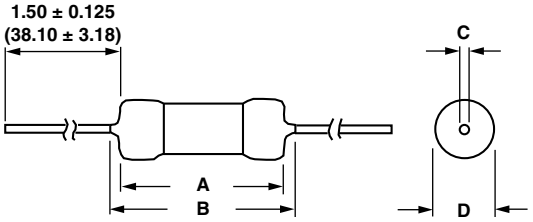
- For additional information on packaging, refer to the Through-Hole Resistor Packaging document (www.vishay.com/doc?31544).

DIMENSIONS in inches (millimeters)

HVW/MVW
(Uncoated)

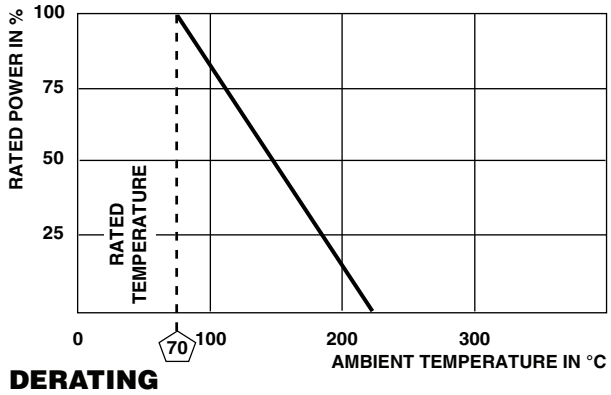


HVX
(Silicone coated)



DIMENSIONS HVW/MVW			
GLOBAL MODEL	A	C	D (Max.)
HVW1/2	0.545 ± 0.015 (13.84 ± 0.38)	0.032 ± 0.002 (0.81 ± 0.05)	0.155 (3.94)
MVW1/2	0.545 ± 0.015 (13.84 ± 0.38)	0.032 ± 0.002 (0.81 ± 0.05)	0.155 (3.94)
HVW3/4	0.895 ± 0.010 (22.73 ± 0.25)	0.032 ± 0.002 (0.81 ± 0.05)	0.155 (3.94)
MVW3/4	0.895 ± 0.010 (22.73 ± 0.25)	0.032 ± 0.002 (0.81 ± 0.05)	0.155 (3.94)

DIMENSIONS HVX				
GLOBAL MODEL	A (Max.)	B (Max.)	C	D (Max.)
HVX1/2	0.651 (16.54)	0.680 (17.27)	0.032 ± 0.002 (0.81 ± 0.05)	0.180 (4.57)
HVX3/4	0.988 (25.10)	1.062 (26.97)	0.032 ± 0.002 (0.81 ± 0.05)	0.180 (4.57)



DERATING

Note

- For operation in oil or inert atmosphere derating, consult factory.

PACKAGING			
GLOBAL MODEL	PACKAGING TYPE	PACKAGING CODE	
		LEAD (Pb)-BEARING	LEAD (Pb)-FREE
MVW1/2, MVW3/4	BULK	n/a	BJ
	TAPE/REEL	n/a	RC
	LACER	n/a	LB
HVW1/2, HVW3/4, HVX1/2, HVX3/4	BULK	BJ	EK
	TAPE/REEL	RC	EE
	LACER	LB	EL

Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, “Vishay”), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay 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.

Statements regarding the suitability of products for certain types of applications are based on Vishay’s knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. 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. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer’s technical experts. Product specifications do not expand or otherwise modify Vishay’s terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.