

Wirewound Resistor, Ultra Precision, Epoxy Molded, Radial Lead


FEATURES

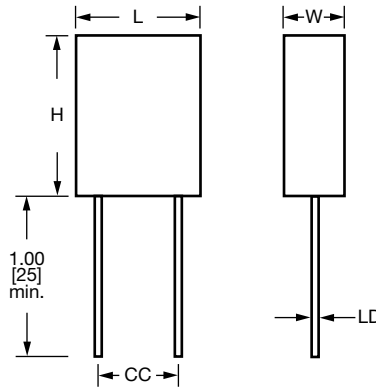
- Resistance values up to 1 MΩ
- Resistance Tolerances down to ± 0.01 %
- Temperature coefficients down to 2 ppm/°C
- Material categorization:
For definitions of compliance please see www.vishay.com/doc?99912



RoHS
COMPLIANT
GREEN
(5-2008)

STANDARD ELECTRICAL SPECIFICATIONS				
GLOBAL MODEL	POWER RATING <i>P</i> _{25 °C} W	RESISTANCE RANGE Ω ± 0.01 %, ± 0.02 %, ± 0.05 %, ± 0.1 %	RESISTANCE RANGE Ω ± 0.25 %, ± 0.5 %, ± 1 %	MAXIMUM WORKING VOLTAGE V
MR702	0.125	10 to 500K	1 to 500K	150
MR703	0.250	10 to 750K	1 to 750K	150
MR705	0.300	10 to 500K	1 to 500K	150
MR706	0.500	10 to 1M	1 to 1M	150

GLOBAL PART NUMBER INFORMATION																	
Global Part Numbering example: MR70233K330BAE66 (visit www.vishay.net SAP parts manual for all options)																	
M	R	7	0	2	3	3	K	3	3	0	B	A	E	6	6		
GLOBAL MODEL (5 digits)				VALUE (6 digits)			TOLERANCE (1 digit)		TC (1 digit)		PACKAGING CODE (3 digits)			SPECIAL (up to 2 digits)			
MR702 MR703 MR705 MR706				R = Decimal K = Thousand M = Million 1R5000 = 1.5 Ω 1K5000 = 1.5 kΩ 1M0000 = 1 MΩ			T = ± 0.01 % Q = ± 0.02 % A = ± 0.05 % B = ± 0.1 % C = ± 0.25 % D = ± 0.5 % F = ± 1.0 %		A = Standard, 10 to 30 (W) B = 3900 (Q) C = 4500 (M) D = 6000 (N) G = 5 J = 2		E66 = Lead (Pb)-free bulk pack			(Dash Number) From 1 to 99 as applicable			
Historical Part Number example: MR702W33K330B																	
MR702			W = STANDARD				33.33 kΩ				0.1 %						
HISTORICAL MODEL			TC				RESISTANCE VALUE				TOLERANCE						

DIMENSIONS in inches [millimeters]


GLOBAL MODEL	DIMENSIONS in inches [millimeters]				
	$L \pm 0.010$ [0.254]	$H \pm 0.005$ [0.127]	$W \pm 0.010$ [0.254]	$LD \pm 0.002$ [0.051]	$CC \pm 0.015$ [0.381]
MR702	0.270 [6.86]	0.250 [6.35]	0.140 [3.56]	0.032 [0.813]	0.125 [3.18]
MR703	0.540 [13.72]	0.270 [6.86]	0.150 [3.81]	0.032 [0.813]	0.250 [6.35]
MR705	0.300 [7.62]	0.320 [8.13]	0.102 [2.59]	0.025 [0.635]	0.150 [3.81]
MR706	0.585 [14.86]	0.525 [13.34]	0.160 [4.06]	0.032 [0.813]	0.400 [10.16]

MATERIAL SPECIFICATIONS

Element: Nickel-chrome alloy, other materials available depending on TC requirements

Core: Molded epoxy

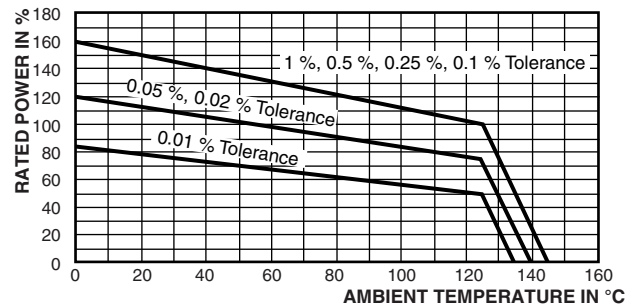
Encapsulant: Epoxy

Standard Terminals: 100 % matte tinned copper

Part Marking: MILLS, model, value, tolerance, date code

Note

- Due to resistor size limitations some resistors will have minimal information marked on parts

DERATING


TECHNICAL SPECIFICATIONS		
PARAMETER	UNIT	MR700 RESISTOR CHARACTERISTICS
Temperature Coefficient	ppm/°C	$\pm 10 > 100 \Omega$; ± 20 for 10Ω to 100Ω ; ± 30 for 1Ω to 9.99Ω
Terminal Strength	lb	4.5
Dielectric Withstanding Voltage	V_{AC}	750
Maximum Working Voltage	V	$(P \times R)^{1/2}$
Operating Temperature Range	°C	- 55 to + 145



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.

Material Category Policy

Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as RoHS-Compliant fulfill the definitions and restrictions defined under Directive 2011/65/EU of The European Parliament and of the Council of June 8, 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (EEE) - recast, unless otherwise specified as non-compliant.

Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.

Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as Halogen-Free follow Halogen-Free requirements as per JEDEC JS709A standards. Please note that some Vishay documentation may still make reference to the IEC 61249-2-21 definition. We confirm that all the products identified as being compliant to IEC 61249-2-21 conform to JEDEC JS709A standards.