Wirewound Resistor, Ultra Precision, Epoxy Molded, Axial Lead

FEATURES

- Resistance values up to 6 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

Pb-free

e3

RoHS COMPLIANT

GREEN (5-2008)

STANDARD ELECTRICAL SPECIFICATIONS

GLOBAL MODEL	POWER RATING $P_{25\ °C}$ W	RESISTANCE RANGE Ω ± 0.01 %, ± 0.02 %, ± 0.05 %, ± 0.1 %	RESISTANCE RANGE Ω ± 0.25 %, ± 0.5 %, ± 1 %	MAXIMUM WORKING VOLTAGE V
MR101	0.120	10 to 400K	1 to 400K	150
MR102	0.175	10 to 750K	1 to 750K	200
MR103	0.200	10 to 750K	1 to 750K	200
MR104	0.150	10 to 500K	1 to 500K	100
MR105	0.200	10 to 1.0M	1 to 1.0M	200
MR106	0.250	10 to 1.2M	1 to 1.2M	300
MR107	0.330	10 to 2.5M	1 to 2.5M	400
MR108	0.400	10 to 3.8M	1 to 3.8M	300
MR110	0.500	10 to 3.8M	1 to 3.8 M	400
MR111	0.500	10 to 3.8M	1 to 3.8M	400
MR112	0.750	10 to 6.0M	1 to 6.0M	600
MR114	1.000	10 to 6.0M	1 to 6.0M	800
MR115	1.500	10 to 6.0M	1 to 6.0M	900
MR116	2.000	10 to 6.0M	1 to 6.0M	1000

GLOBAL PART NUMBER INFORMATION

Global Part Numbering example: MR106250R00TAE66 (visit www.vishay.net SAP parts manual for all options)

M	R	1	0	6	2	5	0	R	0	0	T	A	E	6	6		

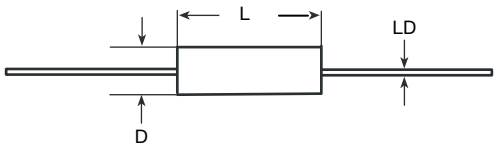
GLOBAL MODEL (5 digits)	VALUE (6 digits)	TOLERANCE (1 digit)	TC (1 digits)	PACKAGING CODE (3 digits)	SPECIAL (up to 2 digits)
(See Standard Electrical Specifications Global Model column for options)	**R** = Decimal **K** = Thousand **M** = Million **1R5000** = 1.5 Ω **1K5000** = 1.5 kΩ **1M0000** = 1 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 **S** = 0.025" terminal

Historical Part Number example: MR106W250R0T

MR106	W = STANDARD	250 Ω	0.01 %
HISTORICAL MODEL	TC	RESISTANCE VALUE	TOLERANCE

For technical questions, contact: ww2aresistors@vishay.com

DIMENSIONS in inches [millimeters]



GLOBAL MODEL	DIMENSIONS in inches [millimeters]		
	L ± 0.025 [0.635]	D ± 0.005 [0.127]	LD ± 0.002 [0.051]
MR101	0.250 [6.35]	0.187 [4.75]	0.025 [0.635]
MR102	0.375 [9.52]	0.187 [4.75]	0.025 [0.635]
MR103	0.450 [11.43]	0.187 [4.75]	0.025 [0.635]
MR104	0.250 [6.35]	0.250 [6.35]	0.025 [0.635]
MR105	0.375 [9.52]	0.250 [6.35]	0.032 [0.813] (1)
MR106	0.500 [12.70]	0.250 [6.35]	0.032 [0.813] (1)
MR107	0.750 [19.05]	0.250 [6.35]	0.032 [0.813] (1)
MR108	0.500 [12.70]	0.375 [9.52]	0.032 [0.813]
MR110	0.750 [19.05]	0.375 [9.52]	0.032 [0.813]
MR111	0.750 [19.05]	0.375 [9.52]	0.032 [0.813]
MR112	1.000 [25.40]	0.375 [9.52]	0.032 [0.813]
MR114	1.000 [25.40]	0.500 [12.70]	0.032 [0.813]
MR115	1.500 [38.10]	0.500 [12.70]	0.032 [0.813]
MR116	2.000 [50.80]	0.500 [12.70]	0.032 [0.813]

Note

(1) 0.025" [0.635] available, this is called out by putting an “S” in the SPECIAL section of the part number.

MATERIAL SPECIFICATIONS

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

Core: Molded epoxy

Encapsulant: Epoxy

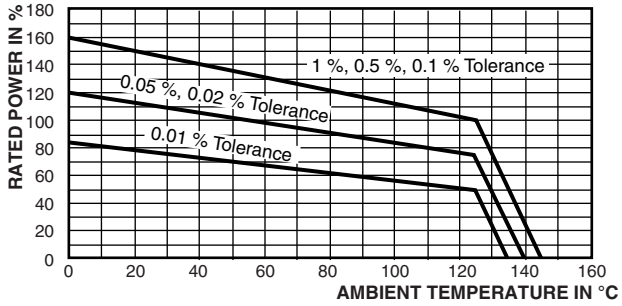
Standard Terminals: 100 % matte tinned copper

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	MR100 RESISTOR CHARACTERISTICS
Temperature Coefficient	ppm/°C	± 10 > 100 Ω; ± 20 for 10 Ω to 100 Ω; ± 30 for 1 Ω to 9.99 Ω
Terminal Strength	lb	4.5
Dielectric Withstanding Voltage	V_{AC}	750
Operating Temperature Range	°C	- 55 to 145
Maximum Working Voltage	V	$(P \times R)^{1/2}$

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