

Wirewound Resistor, Ultra Precision, Epoxy Molded, Radial Lead


FEATURES

- Resistance values up to 1 MΩ
- Resistance tolerances down to ± 0.005 %
- Tighter tolerances and lower resistance values available, please contact factory
- Temperature coefficients down to ± 2 ppm/°C, and up to 6000 ppm/°C
- Matched resistance sets available in tolerances down to ± 0.001 %, and in temperature coefficients down to ± 0.5 ppm/°C, please contact factory
- Custom design capability available, please contact factory
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912



RoHS
COMPLIANT
HALOGEN
FREE
GREEN
(5-2008)

STANDARD ELECTRICAL SPECIFICATIONS						
GLOBAL MODEL	POWER RATING W ⁽¹⁾	RESISTANCE RANGE Ω ± 0.1 %, ± 0.25 %, ± 0.5 %, ± 1 %	RESISTANCE RANGE Ω ± 0.05 %, ± 0.1 %, ± 0.25 %, ± 0.5 %, ± 1 %	RESISTANCE RANGE Ω ± 0.01 %, ± 0.05 %, ± 0.1 %, ± 0.25 %, ± 0.5 %, ± 1 %	RESISTANCE RANGE Ω ± 0.005 %, ± 0.01 %, ± 0.05 %, ± 0.1 %, ± 0.25 %, ± 0.5 %, ± 1 %	MAXIMUM WORKING VOLTAGE V ⁽²⁾
MR602	0.250	1 to 600K	5 to 600K	50 to 600K	1K to 600K	150
MR604	0.125	1 to 500K	5 to 500K	50 to 500K	1K to 500K	150
MR605	0.125	1 to 500K	5 to 500K	50 to 500K	1K to 500K	150
MR606	0.125	1 to 500K	5 to 500K	50 to 500K	1K to 500K	150
MR612	0.400	1 to 800K	5 to 800K	50 to 800K	1K to 800K	300
MR614	0.500	1 to 1M	5 to 1M	50 to 1M	1K to 1M	400

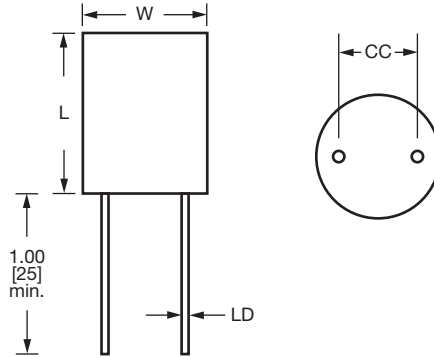
Notes

- ⁽¹⁾ Power rating is based on tolerance, please see derating chart.
⁽²⁾ The maximum working voltage is the highest voltage that can be applied to the resistor. Below this value, the maximum voltage that can continuously be applied is given by $(P \times R)^{1/2}$.

GLOBAL PART NUMBER INFORMATION																	
Global Part Numbering example: MR612250R00AAE66 (visit www.vishay.net SAP parts manual for all options)																	
M	R	6	1	2	2	5	0	R	0	0	A	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)					
MR602 MR604 MR605 MR606 MR612 MR614		R = decimal K = thousand M = million 1R5000 = 1.5 Ω 1K5000 = 1.5 kΩ 1M0000 = 1 MΩ			S = ± 0.005 % 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) E = 3500 (P) Y = 10 (≥ 1 Ω) G = 5 (≥ 10 Ω) J = 2 (≥ 100 Ω)		E66 = lead (Pb)-free bulk pack			(dash number) from 1 to 99 as applicable					
Historical Part Number example: MR612W250R0A																	
MR612		W = STANDARD			250 Ω		0.05 %										
HISTORICAL MODEL		TC			RESISTANCE VALUE		TOLERANCE										



DIMENSIONS in inches [millimeters]



GLOBAL MODEL	DIMENSIONS in inches [millimeters]			
	L ± 0.025 [0.635]	W ± 0.005 [0.127]	LD ± 0.002 [0.051]	CC ± 0.015 [0.381]
MR602	0.500 [12.70]	0.250 [6.35]	0.025 [0.635]	0.150 [3.81]
MR604	0.312 [7.92]	0.250 [6.35]	0.025 [0.635]	0.150 [3.81]
MR605	0.312 [7.92]	0.250 [6.35]	0.025 [0.635]	0.200 [5.08]
MR606	0.375 [9.53]	0.250 [6.35]	0.025 [0.635]	0.150 [3.81]
MR612	0.500 [12.70]	0.375 [9.53]	0.032 [0.813]	0.200 [5.08]
MR614	0.500 [12.70]	0.500 [12.70]	0.032 [0.813] ⁽¹⁾	0.300 [7.62]

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

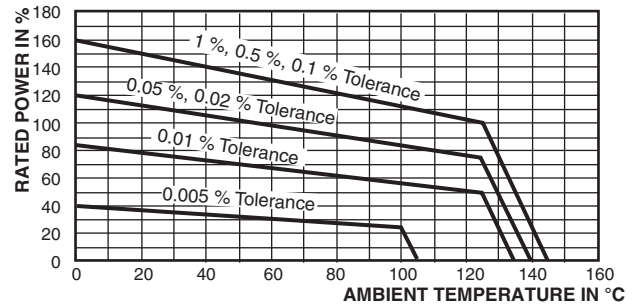
Standard Terminals: 100 % matte tinned copper

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	MR600 RESISTOR CHARACTERISTICS
Temperature Coefficient	ppm/°C	± 10 for > 100 Ω; ± 20 for 10 Ω to 100 Ω; ± 30 for < 10 Ω
Terminal Strength	lb	4.5
Dielectric Withstanding Voltage	V _{AC}	750
Operating Temperature Range	°C	-55 to +145 (see derating chart)



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