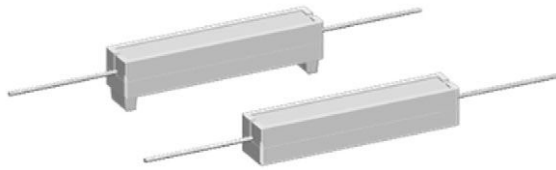




Wirewound Resistors, Commercial Power, Axial Lead



Please reference the Vishay Dale closest equivalent:

- CP (www.vishay.com/doc?30213)
- CP High Volume (www.vishay.com/doc?30113)

Notes

- There may be slight differences between the MRW product and the applicable replacement.
- See the cross-reference file for a complete list of differences and part number crosses:
www.vishay.net/files/Cross-Reference%20Data%20-%20PTN-DR-022-2015%20Rev%200.pdf.

FEATURES

- High performance for low cost
- Meets or exceeds requirements of EIA standard RS-344
- High power to size ratio
- Ceramic cases are available with circuit board stand-offs ("S" SPECIAL)
- Special inorganic potting compound and ceramic case provide high thermal conductivity in a fireproof package
- 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 $P_{40^\circ\text{C}}$ W	RESISTANCE RANGE Ω	TOLERANCE $\pm \%$	WEIGHT (typical) g
MRW05	5	0.01 to 2.4K	5, 10	4.8
MRW05...S	5	0.01 to 2.4K	5, 10	4.8
MRW07	7	0.01 to 5K	5, 10	6.8
MRW07...S	7	0.01 to 5K	5, 10	6.8
MRW10	10	0.01 to 7K	5, 10	9.5
MRW10...S	10	0.01 to 7K	5, 10	9.5
MRW15	15	0.01 to 8K	5, 10	16.8
MRW15...S	15	0.01 to 8K	5, 10	16.8
MRW20	20	0.01 to 10K	5, 10	22.8
MRW20...S	20	0.01 to 10K	5, 10	22.8
MRW22	22	0.01 to 10K	5, 10	24.5
MRW22...S	22	0.01 to 10K	5, 10	24.5

TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	MRW RESISTOR CHARACTERISTICS
Temperature Coefficient	ppm/°C	± 300 for 1.0 Ω and above, ± 600 below 1 Ω
Short Time Overload	-	5 x rated power for 5 s
Terminal Strength	lb	10 minimum
Operating Temperature Range	°C	-65 to +275
Dielectric Withstanding Voltage	V _{AC}	1000
Maximum Working Voltage	V	$(P \times R)^{1/2}$

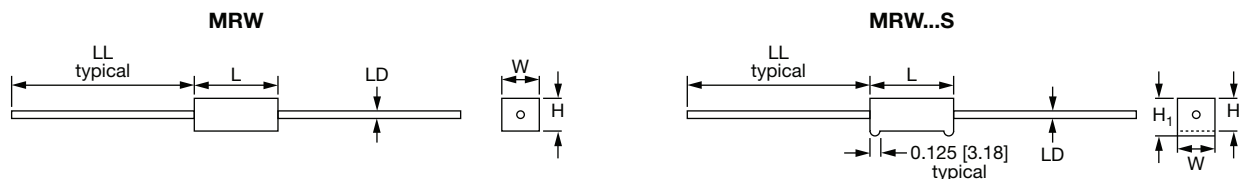
GLOBAL PART NUMBER INFORMATION

Global Part Numbering example: MRW101K500JE14 (Visit www.vishay.net SAP Parts Manual for all options)

M	R	W	1	0	1	K	5	0	0	J	E	1	4			
GLOBAL MODEL (5 digits)					VALUE (5 digits)			TOLERANCE (1 digit)		PACKAGING CODE (3 digits)			SPECIAL (up to 3 digits)			
(See Standard Electrical Specifications Global Model column for options)					R = Decimal K = Thousand 15R00 = 15 Ω 1K500 = 1.5 k Ω			J = $\pm 5 \%$ K = $\pm 10 \%$		E14 = Lead (Pb)-free bulk pack E31 = Lead (Pb)-free four layer bulk pack			(Dash Number) From 1 to 999 as applicable S = Standoff			

Historical Part Number example: MRW10W1K50J

MRW10	W = STANDARD	1.5 k Ω	5 %
HISTORICAL MODEL	TC	RESISTANCE VALUE	TOLERANCE

**DIMENSIONS** in inches [millimeters]

GLOBAL MODEL	DIMENSIONS in inches [millimeters]					
	L ⁽¹⁾ ± 0.031 [0.794]	W ± 0.031 [0.794]	H ± 0.031 [0.794]	H ₁ ± 0.031 [0.794]	LD ± 0.001 [0.025]	LL ± 0.125 [3.175]
MRW05	0.875 [22.22]	0.375 [9.52]	0.344 [8.73]	-	0.036 [0.914]	1.500 [38.10]
MRW05...S	0.875 [22.22]	0.375 [9.52]	0.344 [8.73]	0.406 [10.32]	0.036 [0.914]	1.500 [38.10]
MRW07	1.391 [35.32]	0.375 [9.52]	0.344 [8.73]	-	0.036 [0.914]	1.500 [38.10]
MRW07...S	1.391 [35.32]	0.375 [9.52]	0.344 [8.73]	0.469 [11.91]	0.036 [0.914]	1.500 [38.10]
MRW10	1.875 [47.62]	0.375 [9.52]	0.344 [8.73]	-	0.036 [0.914]	1.500 [38.10]
MRW10...S	1.875 [47.62]	0.375 [9.52]	0.344 [8.73]	0.469 [11.91]	0.036 [0.914]	1.500 [38.10]
MRW15	1.875 [47.62]	0.500 [12.70]	0.500 [12.70]	-	0.036 [0.914]	1.500 [38.10]
MRW15...S	1.875 [47.62]	0.500 [12.70]	0.500 [12.70]	0.625 [15.87]	0.036 [0.914]	1.500 [38.10]
MRW20	2.500 [63.50]	0.500 [12.70]	0.500 [12.70]	-	0.036 [0.914]	1.500 [38.10]
MRW20...S	2.500 [63.50]	0.500 [12.70]	0.500 [12.70]	0.625 [15.87]	0.036 [0.914]	1.500 [38.10]
MRW22	2.500 [63.50]	0.500 [12.70]	0.500 [12.70]	-	0.036 [0.914]	1.500 [38.10]
MRW22...S	2.500 [63.50]	0.500 [12.70]	0.500 [12.70]	0.625 [15.87]	0.036 [0.914]	1.500 [38.10]

Note

(1) Potting compound may extend outside of ceramic case up to 0.060 [1.52] maximum per side.

MATERIAL SPECIFICATIONS

Element: copper-nickel alloy or nickel-chrome alloy, depending on resistance value

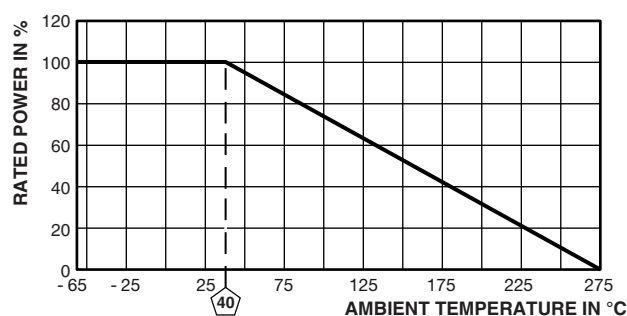
Core: woven fiberglass

Body: steatite ceramic case with inorganic potting compound

End Caps: tin plated steel

Terminals: tinned copper

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

DERATING**PERFORMANCE**

TEST	CONDITIONS OF TEST	TEST LIMITS (EIA-344)
Thermal Shock	-55 °C to +275 °C, 5 cycles, 30 min dwell time	± (5.0 % + 0.05 Ω) ΔR
Short Time Overload	5 x rated power for 5 s	± (4.0 % + 0.05 Ω) ΔR
Dielectric Withstanding Voltage	1000 V _{RMS} for 1 min	± (2.0 % + 0.05 Ω) ΔR
Low Temperature Storage	-65 °C, full rated working voltage for 45 min	± (3.0 % + 0.05 Ω) ΔR
Humidity	75 °C, 90 % to 100 % RH, 240 h	± (5.0 % + 0.05 Ω) ΔR
Load Life	1000 h at rated power, +25 °C, 1.5 h "ON", 0.5 h "OFF"	± (10.0 % + 0.05 Ω) ΔR
Terminal Strength	5 pounds for 30 s; body twisted about axis, 3 x 360° rotations	± (2.0 % + 0.05 Ω) ΔR
Resistance to Solder Heat	Terminal immersed 3.5 s in molten solder up to body	± (4.0 % + 0.05 Ω) ΔR



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.

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:

moschip.ru

moschip.ru_4

moschip.ru_6

moschip.ru_9