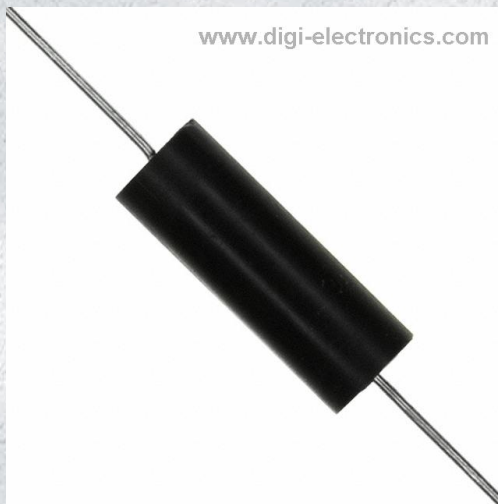


MR5FB10L0 Datasheet



<https://www.DiGi-Electronics.com>

DiGi Electronics Part Number	MR5FB10L0-DG
Manufacturer	Stackpole Electronics Inc
Manufacturer Product Number	MR5FB10L0
Description	RES 0.01 OHM 1% 5W AXIAL
Detailed Description	10 mOhms \pm 1% 5W Through Hole Resistor Axial Current Sense, Moisture Resistant, Non-Inductive, Non-Magnetic Metal Foil

This model MR5FB10L0 is available at DiGi Electronics.

DiGi Electronics offers a global database of semiconductor and electronic component datasheets.

We welcome your inquiries regarding pricing, lead time, or other product-related questions.

 [Request a Quote](#)

 [Datasheet Search](#)



Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.

Purchase and inquiry

Manufacturer Product Number:

MR5FB10L0

Series:

MR

Resistance:

10 MOhms

Power (Watts):

5W

Features:

Current Sense, Moisture Resistant, Non-Inductive, Non-Magnetic

Operating Temperature:

-55°C ~ 275°C

Supplier Device Package:

Axial

Height - Seated (Max):

-

Failure Rate:

-

Manufacturer:

Stackpole Electronics Inc

Product Status:

Active

Tolerance:

±1%

Composition:

Metal Foil

Temperature Coefficient:

-

Package / Case:

Axial

Size / Dimension:

0.330" Dia x 0.925" L (8.38mm x 23.50mm)

Number of Terminations:

2

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8533.21.0090

Moisture Sensitivity Level (MSL):

Not Applicable

ECCN:

EAR99

MR / MRS / TMR Series

Low Resistance Value Resistor – Molded 2 and 4 Leads

Stackpole Electronics, Inc.

Resistive Product Solutions

Features:

- Metal element resistors
- Tinned copper leads
- Low temperature coefficient
- Molded bodies
- TMR – Kelvin Bridge Test
- MRS high stability version
- Cut and formed product is available on selected sizes - contact Stackpole for details
- 100% RoHS compliant and lead free without exemption
- Halogen free
- REACH compliant

**Electrical Specifications**

Type/Code	Power Rating (W) @ 70°C	Short Time Overload	Dielectric Strength	TCR (ppm/°C)	Ohmic Range (Ω) and Tolerance
					1%, 5%
MR1 ⁽²⁾	1	5 seconds at 5 X rated power	500 VAC	± 50 to ± 400 ⁽¹⁾	0.01 - 0.1
MR3 ⁽³⁾	3				0.005 - 0.2
MR5 ⁽⁴⁾	5				0.005 - 0.3
MR10 ⁽⁵⁾	10				0.01 - 0.5
TMR3	3			± 40	0.005 - 0.2
TMR5	5				0.005 - 0.3

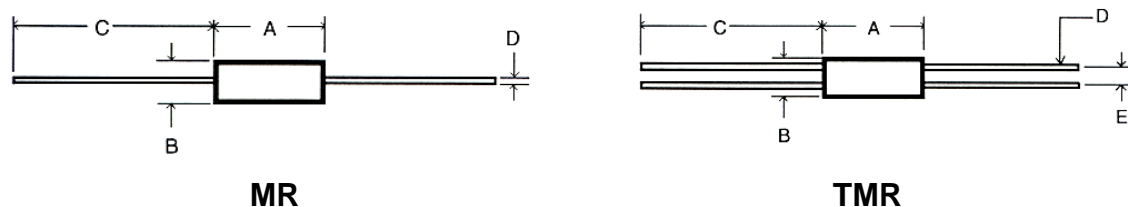
(1) TCR is value dependent. Contact Stackpole for specific data.

(2) MR1 values 0.05Ω and below are non-magnetic and non-inductive. MR1 values ≥ 0.06Ω are ribbon element wound on ceramic core.

(3) MR3 values 0.1Ω and below are non-magnetic and non-inductive. MR3 values ≥ 0.15Ω are ribbon element wound on ceramic core.

(4) MR5 values 0.15Ω and below are non-magnetic and non-inductive. MR5 values ≥ 0.15Ω are ribbon element wound on ceramic core.

(5) MR10 all values are ribbon element wound on ceramic core.

Mechanical Specifications

Type/Code	A Body Length	B Body Diameter	C Lead Length (Bulk) ⁽¹⁾	D Lead Diameter	E Lead Spacing (Ref.)	Unit
MR1	0.385 ± 0.015	0.135 ± 0.015	1.375 ± 0.125	0.032 ± 0.002	-	inches
	9.78 ± 0.38					0.81 ± 0.05
MR3	0.560 ± 0.015	0.205 ± 0.015	1.375 ± 0.125	0.032 ± 0.002		inches
	14.22 ± 0.38					0.81 ± 0.05
MR5	0.925 ± 0.015	0.330 ± 0.015	1.375 ± 0.125	0.036 ± 0.002		inches
	23.50 ± 0.38					0.91 ± 0.05
MR10	1.925 ± 0.015	0.475 ± 0.015	1.375 ± 0.125	0.036 ± 0.002	inches	
	48.90 ± 0.38				0.91 ± 0.05	mm
TMR3	0.625 ± 0.015	0.205 ± 0.015	1.375 ± 0.125	0.032 ± 0.002	0.125	inches
	15.88 ± 0.38				5.21 ± 0.38	34.93 ± 3.18
TMR5	0.940 ± 0.015	0.330 ± 0.015	1.375 ± 0.125	0.036 ± 0.002	0.200	inches
	23.88 ± 0.38				8.38 ± 0.38	34.93 ± 3.18

(1) See Packaging Specification for lead length dimension for tape and reel packaged product.

MR / MRS / TMR Series

Low Resistance Value Resistor – Molded 2 and 4 Leads

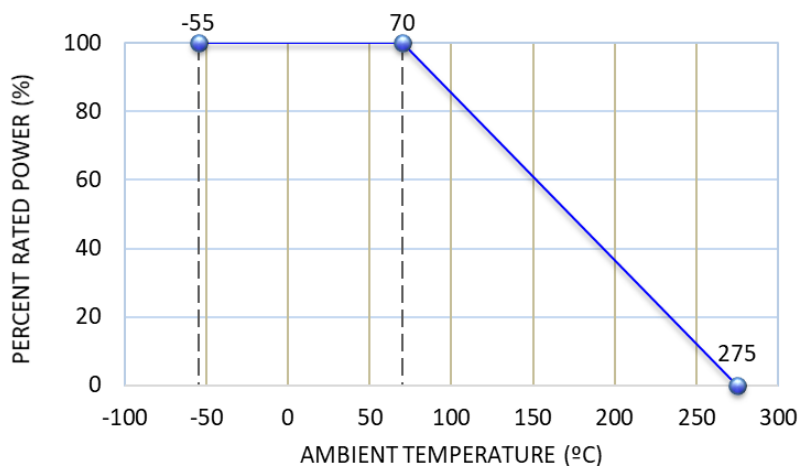
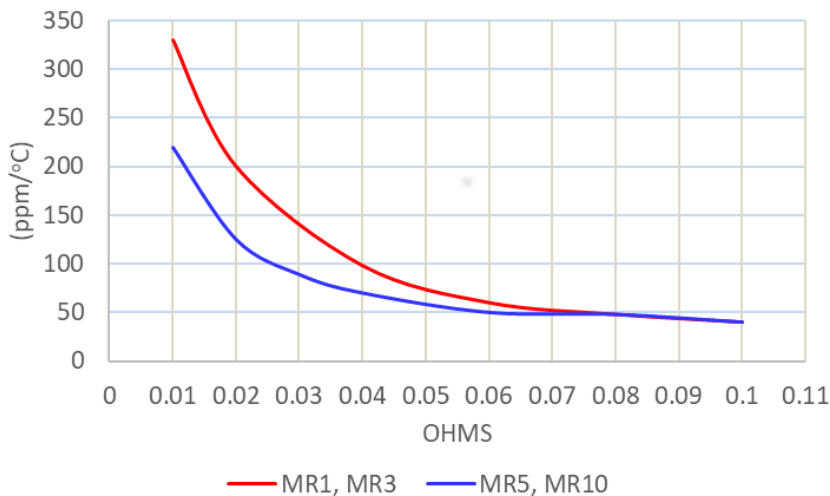
Stackpole Electronics, Inc.

Resistive Product Solutions

Performance Characteristics

Test	Test Results
Moisture Resistance	± 5%
Thermal Shock	± 2%
Load Life @ 70°C - 1000 hours	± 5%
Resistance to Soldering Heat	± 2%
Short Time Overload	± 2%
Dielectric Withstanding Voltage	± 2%

Operating Temperature Range: -55°C to +275°C

Power Derating Curve:**TCR X Resistance:**

MR / MRS / TMR Series

Low Resistance Value Resistor – Molded 2 and 4 Leads

Stackpole Electronics, Inc.

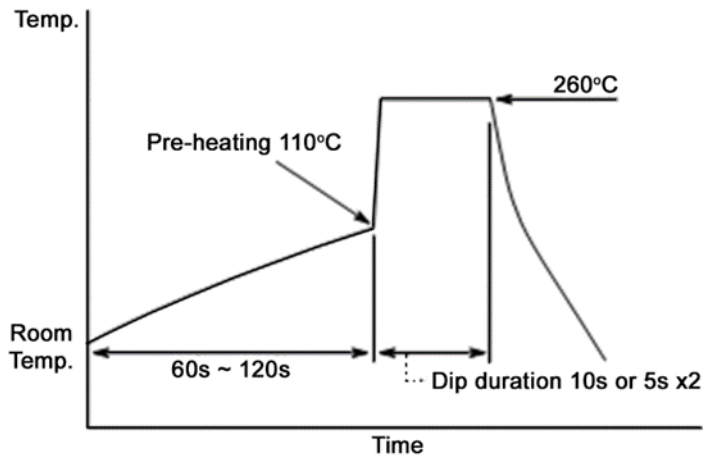
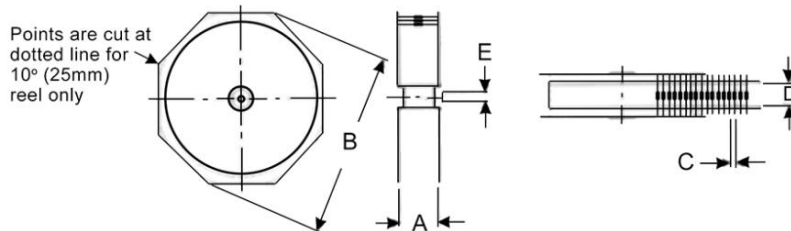
Resistive Product Solutions

Recommended Soldering Condition**Flow Soldering:**

- Pre-heating: 110°C MAX
- Peak temperature/duration: 260°C within 10 seconds (1st, 2nd wave total)
- Temperature profile (see chart on the right)

Iron Soldering:

- 380°C, 5 seconds, once/terminal

**Packaging Specifications**

Series	Code	A max ⁽¹⁾	B max	C	D ⁽²⁾	Tape	Unit
MR	1	3.311	13.504	0.197 ± 0.020	2.063 ± 0.079	0.250	inches
		84.10	343.00	5.00 ± 0.50	52.40 ± 2.00	6.35	mm
	3	3.484	13.504	0.394 ± 0.020	2.063 ± 0.079	0.250	inches
		88.50	343.00	10.00 ± 0.50	52.40 ± 2.00	6.35	mm
	5	3.850	13.504	0.394 ± 0.020	2.875 ± 0.079	0.250	inches
		97.80	343.00	10.00 ± 0.50	73.03 ± 2.00	6.35	mm
	10	4.764	13.504	0.600 ± 0.020	4.375 ± 0.079	0.250	inches
		121.00	343.00	15.24 ± 0.50	111.13 ± 2.00	6.35	mm

Dimension "E": This is a non-critical dimension that does not have a tolerance in the standard.
Range of diameters is from 0.547 inches (13.90 mm) to 1.500 inches (38.10 mm).

- (1) Reference value only. The "A" dimension shall be governed by the overall length of the taped component. The distance between flanges shall be 0.059 inches (1.50 mm) to 0.315 (8.00 mm) greater than the overall component.
- (2) The given dimension "D" expresses the standard width spacing. A 26 mm narrow spacing is available as option "N" packaging code.

RoHS Compliance

Stackpole Electronics has joined the worldwide effort to reduce the amount of lead in electronic components and to meet the various regulatory requirements now prevalent, such as the European Union's directive regarding "Restrictions on Hazardous Substances" (RoHS 3). As part of this ongoing program, we periodically update this document with the status regarding the availability of our compliant components. All our standard part numbers are compliant to EU Directive 2011/65/EU of the European Parliament as amended by Directive (EU) 2015/863/EU as regards the list of restricted substances.

MR / MRS / TMR Series

Low Resistance Value Resistor – Molded 2 and 4 Leads

Stackpole Electronics, Inc.

Resistive Product Solutions

RoHS Compliance Status

Standard Product Series	Description	Package / Termination Type	Standard Series RoHS Compliant	Lead-Free Termination Composition	Lead-Free Mfg. Effective Date (Std Product Series)	Lead-Free Effective Date Code (YY/WW)
MR	Low Resistance Value Leaded Resistor - Molded 2 Leads	Axial Kelvin	YES	100% Matte Sn	Jan-06	06/01
TMR	Low Resistance Value Leaded Resistor - Molded 4 Leads	Axial Kelvin	YES	100% Matte Sn	Jan-06	06/01

“Conflict Metals” Commitment

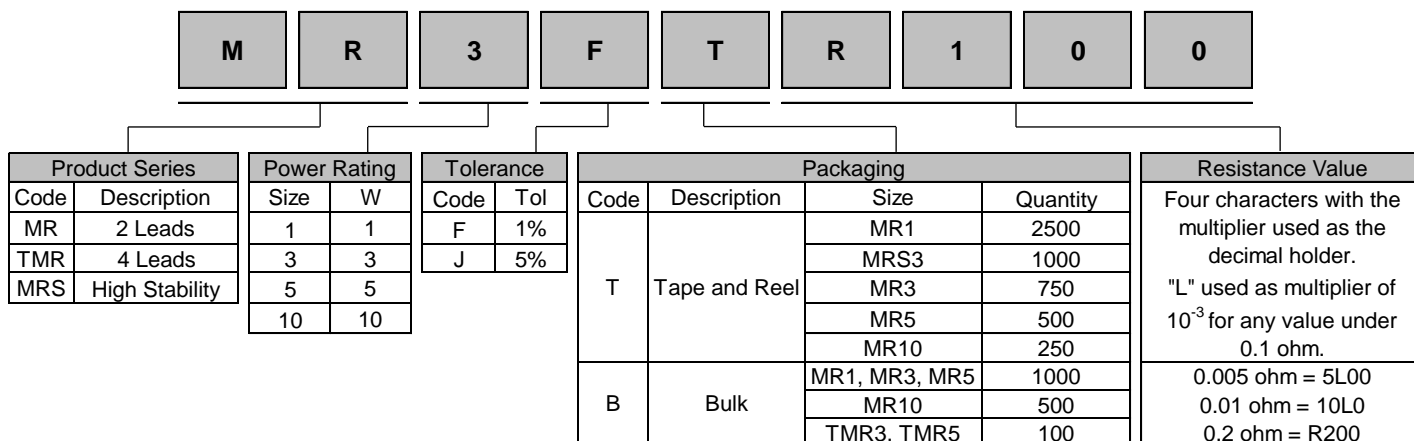
We at Stackpole Electronics, Inc. are joined with our industry in opposing the use of metals mined in the “conflict region” of the Eastern Democratic Republic of the Congo (DRC) in our products. Recognizing that the supply chain for metals used in the electronics industry is very complex, we work closely with our own suppliers to verify to the extent possible that the materials and products we supply do not contain metals sourced from this conflict region. As such, we are in compliance with the requirements of Dodd-Frank Act regarding Conflict Minerals.

Compliance to “REACH”

We certify that all passive components supplied by Stackpole Electronics, Inc. are SVHC (Substances of Very High Concern) free and compliant with the requirements of EU Directive 1907/2006/EC, “The Registration, Evaluation, Authorization and Restriction of Chemicals”, otherwise referred to as REACH. Contact us for complete list of REACH Substance Candidate List.

Environmental Policy

It is the policy of Stackpole Electronics, Inc. (SEI) to protect the environment in all localities in which we operate. We continually strive to improve our effect on the environment. We observe all applicable laws and regulations regarding the protection of our environment and all requests related to the environment to which we have agreed. We are committed to the prevention of all forms of pollution.

How to Order

OUR CERTIFICATE

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