Features

- Radial leaded devices
- Cured, flame retardant epoxy polymer insulating material meets UL 94V-0 requirements
- Bulk packaging, tape and reel available
- Resettable circuit protection
- Agency recognition:
- RoHS compliant*

Applications

- Food blenders, coffee machines
- HVAC
- Electric fans, blowers
- AC adaptors

MF-RM Series - PTC Resettable Fuses

Electrical Characteristics

Model	Typical Current Trip Limit		V_{max}		I_{max}	Initial Resistance	One Hour Post-Trip Resistance	Max. Time to Trip		Tripped Power Dissipation
	I_{hold} at 23 °C	I_{trip} at 23 °C	Operating Voltage	Interrupt Voltage	Interrupt Current	$R_{Min.}$ at 23 °C	R_1 Max. at 23 °C	at 23 °C		PD Typ. at 23 °C
	(A)	(A)	(Vac)	(Vac)	(A)	(Ohms)	(Ohms)	(A)	(Sec.)	(W)
MF-RM005/240	0.05	0.12	240	265	1.0	18.50	65.00	0.25	10.0	0.9
MF-RM008/240	0.08	0.19	240	265	1.2	7.40	26.00	0.40	10.0	0.9
MF-RM012/240	0.12	0.30	240	265	1.2	3.00	12.00	0.60	15.0	1.0
MF-RM016/240	0.16	0.37	240	265	2.0	2.50	7.80	0.80	15.0	1.4
MF-RM025/240	0.25	0.56	240	265	3.5	1.30	3.80	1.25	18.5	1.5
MF-RM033/240	0.33	0.74	240	265	4.5	0.77	2.60	1.65	21.0	1.7
MF-RM040/240	0.40	0.90	240	265	5.5	0.60	1.90	2.00	24.0	2.0
MF-RM055/240	0.55	1.25	240	265	7.0	0.45	1.45	2.75	26.0	3.4

Environmental Characteristics

Operating Temperature..... -20 °C to +85 °C
Humidity Aging..... +85 °C, 85 % R.H. 1000 hours .....±20 % typical resistance change
Passive Aging..... +85 °C, 1000 hours.....±20 % typical resistance change
Vibration ..... MIL-STD-883C, Method 2007.1,.....No change
Condition A
Solvent Resistance..... MIL-STD-202, Method 215 .....No change

Test Procedures And Requirements For Model MF-RM Series

Item	Test Conditions	Accept/Reject Criteria
Visual/Mechanical	Verify dimensions and material	Per MF physical description
Resistance	In still air @ 23 °C	$R_{min} \le R \le R1_{max}$
Time to Trip	240 Vac, specified current	T ≤ max. time to trip
Hold Current	At Ihold	No trip
Trip Cycle Life	240 Vac, I_{max}, 100 cycles	No arcing or burning
Trip Endurance	a) 240 Vac, I_{max}, 24 hours	No arcing or burning
	b) 265 Vac, I_{max}, 30 mins.	
Solderability	MIL-STD-202, Method 208	95 % min. coverage

UL File Number E174545
TÜV Certificate Number R50232433

*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.
Specifications are subject to change without notice.
Customers should verify actual device performance in their specific applications.

Advantages

- Resettable feature with overtemperature and overcurrent protection can save expensive components from having to be replaced after tripping, e.g., transformers with built in thermal fuses
- Faster than bimetallic switch designs that take on average approximately 30 seconds to cool down and reset
- Generally lower electromagnetic interference than bimetallic switches

Benefits

- Reduced repair and replacement costs
- Reduced nuisance tripping
- Combined overcurrent and overtemperature protector in one device

MF-RM Series - PTC Resettable Fuses

BOURNS®

Thermal Derating Chart - I_{hold} (Amps)

Model	Ambient Operating Temperature							
	-20 °C	0 °C	23 °C	40 °C	50 °C	60 °C	70 °C	85 °C
MF-RM005/240	0.08	0.06	0.05	0.04	0.04	0.03	0.03	0.02
MF-RM008/240	0.12	0.10	0.08	0.07	0.06	0.05	0.04	0.03
MF-RM012/240	0.18	0.15	0.12	0.10	0.09	0.07	0.06	0.04
MF-RM016/240	0.24	0.20	0.16	0.13	0.11	0.10	0.08	0.05
MF-RM025/240	0.38	0.32	0.25	0.21	0.18	0.15	0.13	0.09
MF-RM033/240	0.50	0.42	0.33	0.27	0.23	0.20	0.17	0.11
MF-RM040/240	0.61	0.51	0.40	0.33	0.28	0.24	0.20	0.14
MF-RM055/240	0.80	0.68	0.55	0.46	0.40	0.35	0.29	0.22

Product Dimensions

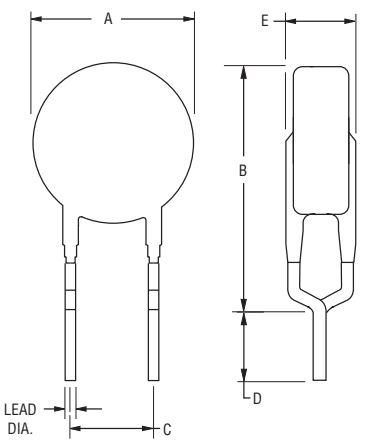
Model	A	B	C		D	E	Physical Characteristics		
	Max.	Max.	Nom.	Tol. ±	Min.	Max.	Style	Lead Dia.	Material
MF-RM005/240	8.3 (0.327)	12.9 (0.508)	5.1 (0.201)	0.7 (0.028)	7.6 (0.299)	3.8 (0.150)	1	0.51 (0.020)	Sn/Cu
MF-RM008/240	8.3 (0.327)	12.9 (0.508)	5.1 (0.201)	0.7 (0.028)	7.6 (0.299)	3.8 (0.150)	1	0.51 (0.020)	Sn/Cu
MF-RM012/240	8.3 (0.327)	12.9 (0.508)	5.1 (0.201)	0.7 (0.028)	7.6 (0.299)	3.8 (0.150)	1	0.51 (0.020)	Sn/Cu
MF-RM016/240	9.9 (0.390)	13.8 (0.543)	5.1 (0.201)	0.7 (0.028)	7.6 (0.299)	3.8 (0.150)	1	0.51 (0.020)	Sn/Cu
MF-RM025/240	10.0 (0.394)	20.0 (0.787)	5.1 (0.201)	0.7 (0.028)	7.6 (0.299)	3.8 (0.150)	2	0.65 (0.026)	Sn/Cu
MF-RM033/240	11.4 (0.449)	20.0 (0.787)	5.1 (0.201)	0.7 (0.028)	7.6 (0.299)	3.8 (0.150)	2	0.65 (0.026)	Sn/Cu
MF-RM040/240	11.5 (0.453)	20.9 (0.823)	5.1 (0.201)	0.7 (0.028)	7.6 (0.299)	3.8 (0.150)	2	0.65 (0.026)	Sn/Cu
MF-RM055/240	14.0 (0.551)	22.4 (0.882)	5.1 (0.201)	0.7 (0.028)	7.6 (0.299)	4.1 (0.161)	2	0.81 (0.032)	Sn/Cu

Packaging options:
BULK: 500 pcs. per bag.
TAPE & REEL: 2000 pcs. per reel (MF-RM005/240~MF-RM040/240); 1000 pcs. per reel (MF-RM055/240)

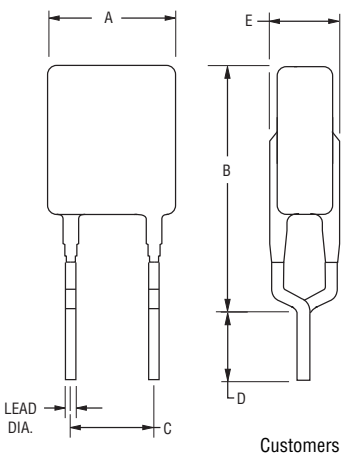
0.51 (24AWG)
0.65 (22AWG)
0.81 (20AWG)

DIMENSIONS: MM / (INCHES)

Style 1

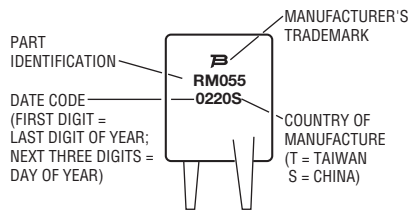


Style 2



Typical Part Marking

Represents total content. Layout may vary.



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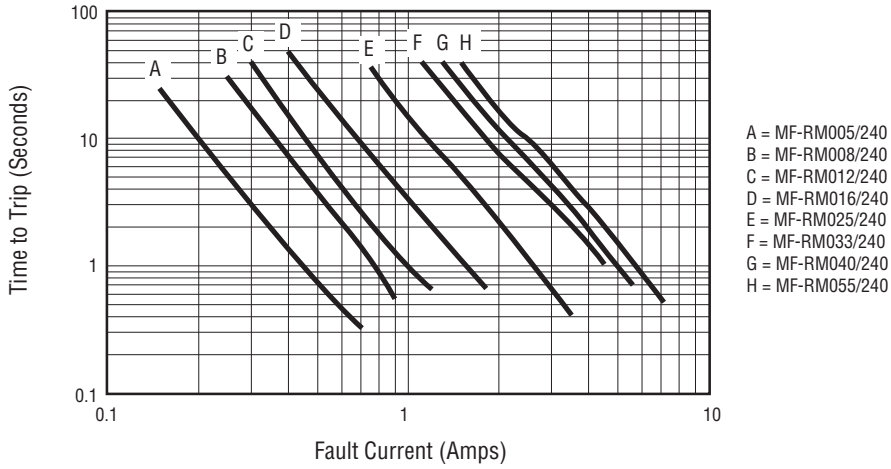
Typical Time to Trip at 23 ˚C



A = MF-RM005/240
B = MF-RM008/240
C = MF-RM012/240
D = MF-RM016/240
E = MF-RM025/240
F = MF-RM033/240
G = MF-RM040/240
H = MF-RM055/240

How to Order

MF - RM 005 / 240 - 2

Multifuse® Product Designator

Series
RM = Radial Leaded Component

Hold Current, I_{hold}
005-055 (0.05 Amps - 0.55 Amps)

Operating Voltage, V_{max}
240 = 240 Vac

Packaging Options
- 0 = Bulk Packaging
- 2 = Tape and Reel

*Packaged per EIA486-B

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www.bourns.com

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MF-RM Series Tape and Reel Specifications

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Devices taped using EIA468–B/IEC60286-2 standards. See table below and Figures 1 and 2 for details.

Dimension Description	IEC Mark	EIA Mark	Dimensions	
			Dimensions	Tolerance
Carrier tape width	W	W	18 (.709)	-0.5/+1.0 (-0.02/+.039)
Hold down tape width	W_0	W_4	11 (.433)	min.
Hold down tape			No protrusion	
Top distance between tape edges	W_2	W_6	3 (.118)	max.
Sprocket hole position	W_1	W_5	9 (.354)	-0.5/+0.75 (-0.02/+0.03)
Sprocket hole diameter	D_0	D_0	4 (.157)	±0.2 (±.079)
Abscissa to plane (MF-RM005/240~MF-RM016/240)	H	H	18.5 (.728)	±3.0 (±.118)
Abscissa to plane (MF-RM025/240~MF-RM055/240)	H_0	H_0	16 (.63)	±0.5 (±.02)
Abscissa to top (MF-RM005/240~MF-RM016/240)	H_1	H_1	32.2 (1.268)	max.
Abscissa to top (MF-RM025/240~MF-RM055/240)	H_1	H_1	45.0 (1.772)	max.
Overall width w/lead protrusion (MF-RM005/240~MF-RM016/240)		C_1	43.2 (1.701)	max.
Overall width w/lead protrusion (MF-RM025/240~MF-RM055/240)		C_1	56.0 (2.205)	max.
Overall width w/o lead protrusion (MF-RM005/240~MF-RM016/240)		C_2	42.5 (1.673)	max.
Overall width w/o lead protrusion (MF-RM025/240~MF-RM055/240)		C_2	56.0 (2.205)	max.
Lead protrusion	l_1	L_1	1.0 (.039)	max.
Protrusion of cutout	L	L	11 (.433)	max.
Protrusion beyond hold-down tape	l_2	l_2	Not specified	
Sprocket hole pitch	P_0	P_0	12.7 (.500)	±0.3 (±.012)
Pitch tolerance			20 consecutive	±1 (±.039)
Device pitch (MF-RM005/240-MF-RM040/240)			12.7 (.500)	±0.3 (±.012)
Device pitch (MF-RM055/240)			25.4 (1.00)	±0.6 (±.024)
Tape thickness	t	t	0.9 (.035)	max.
Tape thickness with splice (MF-RM005/240~MF-RM040/240)		t_1	1.5 (.059)	max.
Tape thickness with splice (MF-RM055/240)		t_1	2.3 (.091)	max.
Splice sprocket hole alignment			0	±0.3 (±.012)
Body lateral deviation	Δh	Δh	0	±1 (±.039)
Body tape plane deviation	Δp	Δp	0	±0.3 (±.012)
Lead seating plane deviation	ΔP_1	P_1	3.81 (.015)	±0.7 (±.028)
Lead spacing	F	F	5.08 (.200)	+0.8/-0.5 (+.031/-.020)

DIMENSIONS: MM (INCHES)

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MF-RM Series Tape and Reel Specifications

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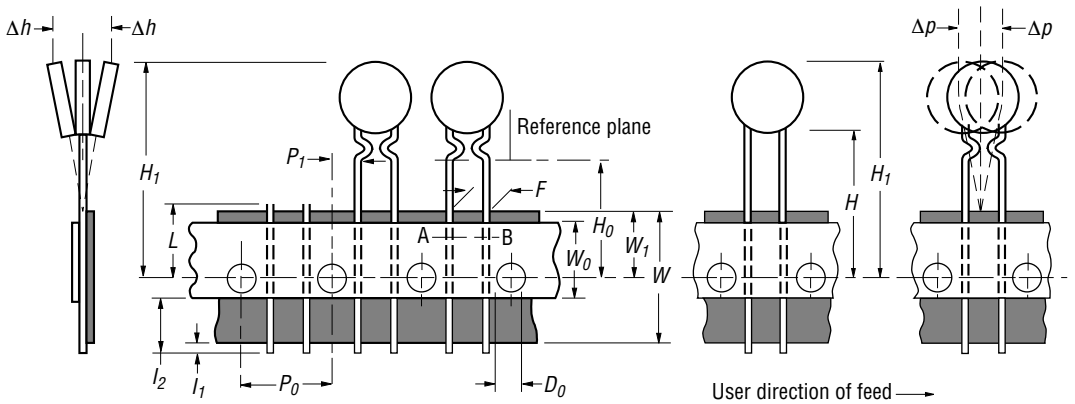
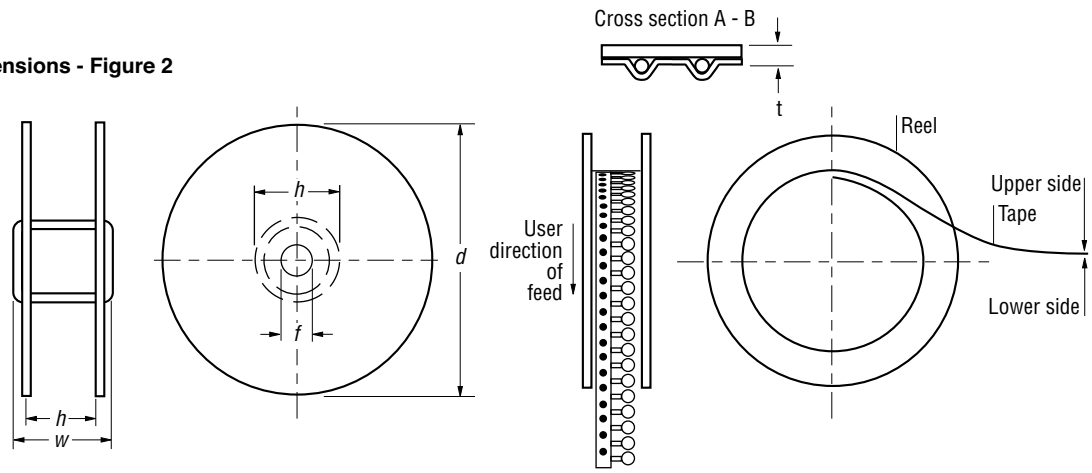
Dimension Description	IEC Mark	EIA Mark	Dimensions			Tolerance
Reel width (MF-RM005/240~MF-RM040/240)	*w*	w_2	56.0 (2.20)			max.
Reel width (MF-RM055/240)	*w*	w_2	63.5 (2.50)			max.
Reel diameter	*d*	*a*	370.0 (14.57)			max.
Space between flanges (MF-RM005/240~MF-RM040/240)	*h*	w_1	48.0 (1.89)			max.
Space between flanges (MF-RM055/240)	*h*	w_1	55.0 (2.17)			max.
Arbor hole diameter	*f*	*c*	26.0 (1.02)			±12.0 (±.472)
Core diameter	*h*	*n*	91.0 (3.58)			max.
Box			64 (2.5)	372 (14.6)	372 (14.6)	max.
Consecutive missing places			3			max.
Empty places per reel			0.1 %			max.

DIMENSIONS: MM (INCHES)

Taped Component Dimensions - Figure 1



Reel Dimensions - Figure 2



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Общество с ограниченной ответственностью «МосЧип» ИНН 7719860671 / КПП 771901001
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Данный компонент на территории Российской Федерации

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http://moschip.ru/get-element

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