

Features

- Operating temperature range up to 125 °C
- Low thermal derating factor
- Higher hold currents at elevated temperatures
- RoHS compliant* and halogen free**
- Agency recognition: c **Tu**us

MF-RHS Series - High Temperature PPTC Resettable Fuses

Electrical Characteristics

Model	V _{max}	ı _x I _{max}	I _{hold}	I _{trip}	Resis	stance	Max. Time to Trip		Tripped Power Dissipation	Agency Recognition
			at 23 °C		at 23 °C (Ohms)		at 23 °C		at 23 °C (Watts)	cUL
	Volts	Amps	Amps		R _{min}	R _{1Max.} ***	Amps Seconds		Тур.	E174545
MF-RHS350			3.5	7.0	0.018	0.050	17.5	4.5	3.0	1
MF-RHS400]		4.0	8.0	0.016	0.044	20.0	5.0	3.0	1
MF-RHS450]		4.5	9.0	0.0145	0.040	22.5	5.5	3.0	1
MF-RHS500]		5.0	10.0	0.0135	0.038	25.0	5.8	3.0	1
MF-RHS550]		5.5	11.0	0.0120	0.032	27.5	10.0	3.0	1
MF-RHS600]		6.0	12.0	0.0090	0.0252	30.0	6.5	3.3	1
MF-RHS650]		6.5	13.0	0.0095	0.0225	32.5	6.5	3.3	1
MF-RHS700	16	100	7.0	14.0	0.0085	0.0190	35.0	6.8	3.7	1
MF-RHS750]		7.5	15.0	0.0073	0.0168	37.5	7.0	4.0	1
MF-RHS800]		8.0	16.0	0.0060	0.0145	40.0	8.0	4.3	1
MF-RHS900]		9.0	18.0	0.0046	0.0098	45.0	9.0	5.0	1
MF-RHS1000			10.0	20.0	0.0042	0.0090	50.0	10.0	5.4	1
MF-RHS1100]		11.0	22.0	0.0038	0.0083	55.0	11.2	5.7	1
MF-RHS1200]		12.0	24.0	0.0035	0.0077	60.0	12.5	6.0	1
MF-RHS1300			13.0	26.0	0.0033	0.0070	60.0	14.0	6.4	1

^{***}R_{1max}: measured 1 hour post reflow.

Environmental Characteristics

Item	Condition	Criteria
Operating Temperature	-40 °C to +125 °C	
Recommended Storage	+40 °C max. / 70 % R.H. max.	
Passive Aging	+85 °C, 1000 hours	±5 % typical resistance change
Humidity Aging	+85 °C, 85 % R.H. 1000 hours	±5 % typical resistance change
Thermal Shock	-40 °C to +125 °C, 10 times	±10 % typical resistance change
Solvent Resistance	MIL-STD-202, Method 215	No change (marking still legible)
Vibration	MIL-STD-883C, Method 2007.1 Condition A	No change (R _{min} < R < R _{1max})
Moisture Sensitivity Level (MSL)	See Note	
ESD Classification	Class 6 (per AEC-Q200-2, HBM)	

Additional Information

Click these links for more information:











PRODUCT TECHNICAL INVENTORY SAMPLES CONTACT



WARNING **Cancer and Reproductive Harm** www.P65Warnings.ca.gov

RoHS Directive 2015/863, Mar 31, 2015 and Annex. ** Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

Applications

- DC motors
- Servers and data centers
- HVAC (heating, ventilation and cooling) protection in motors, air-flow detection and I/O

MF-RHS Series - High Temperature PPTC Resettable Fuses

Test Procedures and Requirements

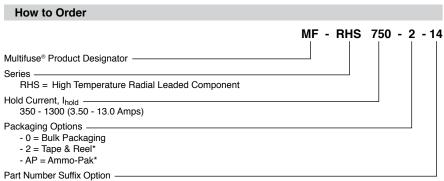
Item	Test Conditions	Accept/Reject Criteria
Visual/Mechanical	Verify dimensions and materials	Per MF physical description
Resistance	In still air @ 23 °C	$R_{min} \le R \le R_{max}$
Time to Trip	At specified current, V _{max} , 23 °C, still air	T ≤ max. time to trip (seconds)
Hold Current	30 min. at I _{hold} , still air	No trip
Trip Cycle Life	V _{max} , I _{max} , 100 cycles	No arcing or burning
Trip Endurance	V _{max} , 48 hours	No arcing or burning
Solderability	245 °C ± 5 °C, 5 seconds	95 % min. coverage

Thermal Derating Table - Ihold (Amps)

Madal	Ambient Operating Temperature											
Model	-40 °C	-20 °C	0 °C	23 °C	40 °C	50 °C	60 °C	70 °C	85 °C	125 °C		
MF-RHS350	4.8	4.5	4.1	3.5	3.2	3.0	2.8	2.5	2.1	1.0		
MF-RHS400	5.2	4.9	4.5	4.0	3.5	3.3	3.0	2.6	2.2	1.0		
MF-RHS450	5.4	5.2	5.0	4.5	3.8	3.5	3.2	2.9	2.4	1.1		
MF-RHS500	6.3	6.0	5.7	5.0	4.7	4.4	4.0	3.8	3.3	1.5		
MF-RHS550	8.1	7.2	6.2	5.5	5.1	4.8	4.3	4.0	3.5	1.7		
MF-RHS600	8.6	7.7	6.6	6.0	5.5	5.2	4.8	4.4	3.8	1.8		
MF-RHS650	9.0	8.1	7.2	6.5	6.0	5.5	5.1	4.7	4.1	1.9		
MF-RHS700	9.4	8.6	7.9	7.0	6.4	5.8	5.4	4.9	4.4	2.0		
MF-RHS750	9.9	9.1	8.4	7.5	6.7	6.1	5.8	5.2	4.6	2.2		
MF-RHS800	11.2	9.7	8.9	8.0	7.1	6.5	6.3	5.8	4.8	2.6		
MF-RHS900	13.1	11.4	10.3	9.0	8.4	7.8	7.4	6.6	5.9	3.1		
MF-RHS1000	15.0	13.1	11.2	10.0	9.4	8.8	8.1	7.6	6.8	3.5		
MF-RHS1100	15.7	13.8	12.2	11.0	10.0	9.2	8.4	7.9	7.1	3.6		
MF-RHS1200	16.3	14.6	12.9	12.0	10.5	9.6	8.9	8.2	7.3	3.8		
MF-RHS1300	16.8	15.4	14.0	13.0	11.5	10.3	9.4	8.5	7.5	3.9		

MF-RHS Series - High Temperature PPTC Resettable Fuses

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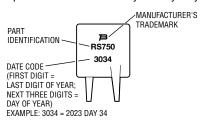
- 14 = Kinked leads where straight leads are standard

Packaging Quantity

Packaging options Models		Unit Quantity (Pcs.)	Unit	
Bulk	All models	500	Bag	
	MF-RHS350, MF-RHS400, MF-RHS450, MF-RHS500, MF-RHS550, MF-RHS600, MF-RHS650	3000		
Tape & Reel	MF-RHS700, MF-RHS750, MF-RHS800, MF-RHS900, MF-RHS1000	1500	Reel	
	MF-RHS1100, MF-RHS1200, MF-RHS1300	1000		
	MF-RHS350, MF-RHS400, MF-RHS450, MF-RHS500, MF-RHS550, MF-RHS600, MF-RHS650	2000		
Ammo-Pack	MF-RHS700, MF-RHS750, MF-RHS800, MF-RHS900, MF-RHS1000	1000	Вох	
	MF-RHS1100, MF-RHS1200, MF-RHS1300	500		

Typical Part Marking

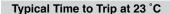
Represents total content. Layout may vary.

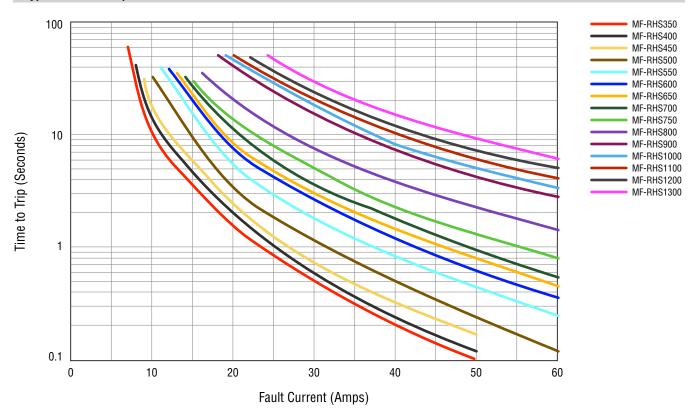


^{*}Packaged per EIA-468

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The Time to Trip curves represent typical performance of a device in a simulated application environment.

Actual performance in specific customer applications may differ from these values due to the influence of other variables.

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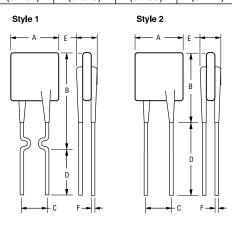
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MF-RHS Series - High Temperature PPTC Resettable Fuses

Product Dimensions

	A	В	(0	D	E	F	Physical Characteristics		
Model	Max.	Max.	Nom.	Tol. ±	Min.	Max.	Nom.	Style	Material	
MF-RHS350	8.40 (0.331)	16.9 (0.665)	<u>5.1</u> (0.201)	<u>0.7</u> (0.028)	7.6 (0.299)	3.0 (0.118)	0.81 (0.032)	2	Sn/Cu	
MF-RHS400	8.40 (0.331)	17.9 (0.705)	<u>5.1</u> (0.201)	<u>0.7</u> (0.028)	7.6 (0.299)	3.0 (0.118)	0.81 (0.032)	2	Sn/Cu	
MF-RHS450	8.40 (0.331)	18.9 (0.744)	5.1 (0.201)	<u>0.7</u> (0.028)	7.6 (0.299)	3.0 (0.118)	<u>0.81</u> (0.032)	2	Sn/Cu	
MF-RHS500	9.20 (0.362)	19.2 (0.756)	5.1 (0.201)	<u>0.7</u> (0.028)	7.6 (0.299)	3.0 (0.118)	<u>0.81</u> (0.032)	2	Sn/Cu	
MF-RHS550	9.30 (0.366)	19.5 (0.768)	5.1 (0.201)	<u>0.7</u> (0.028)	7.6 (0.299)	3.0 (0.118)	<u>0.81</u> (0.032)	2	Sn/Cu	
MF-RHS600	8.75 (0.344)	22.4 (0.882)	5.1 (0.201)	<u>0.7</u> (0.028)	7.6 (0.299)	3.0 (0.118)	<u>0.81</u> (0.032)	2	Sn/Cu	
MF-RHS650	10.70 (0.421)	23.2 (0.913)	<u>5.1</u> (0.201)	<u>0.7</u> (0.028)	7.6 (0.299)	3.0 (0.118)	0.81 (0.032)	2	Sn/Cu	
MF-RHS700	11.80 (0.465)	23.3 (0.917)	<u>5.1</u> (0.201)	0.7 (0.028)	7.6 (0.299)	3.0 (0.118)	0.81 (0.032)	2	Sn/Cu	
MF-RHS750	11.80 (0.465)	24.3 (0.957)	<u>5.1</u> (0.201)	0.7 (0.028)	7.6 (0.299)	3.0 (0.118)	0.81 (0.032)	2	Sn/Cu	
MF-RHS800	12.80 (0.504)	24.7 (0.972)	<u>5.1</u> (0.201)	0.7 (0.028)	7.6 (0.299)	3.6 (0.142)	1.00 (0.039)	2	Sn/Cu	
MF-RHS900	14.40 (0.567)	24.9 (0.980)	10.2 (0.402)	0.7 (0.028)	7.6 (0.299)	3.6 (0.142)	1.00 (0.039)	2	Sn/Cu	
MF-RHS1000	14.40 (0.567)	27.9 (1.098)	10.2 (0.402)	<u>0.7</u> (0.028)	7.6 (0.299)	3.6 (0.142)	1.00 (0.039)	2	Sn/Cu	
MF-RHS1100	17.40 (0.685)	27.9 (1.098)	10.2 (0.402)	<u>0.7</u> (0.028)	7.6 (0.299)	3.6 (0.142)	1.00 (0.039)	2	Sn/Cu	
MF-RHS1200	17.40 (0.685)	27.9 (1.098)	10.2 (0.402)	<u>0.7</u> (0.028)	7.6 (0.299)	3.6 (0.142)	1.00 (0.039)	2	Sn/Cu	
MF-RHS1300	17.40 (0.685)	28.9 (1.138)	10.2 (0.402)	<u>0.7</u> (0.028)	7.6 (0.299)	3.6 (0.142)	1.00 (0.039)	2	Sn/Cu	

 $\frac{\text{MM}}{(\text{INCHES})}$ DIMENSIONS:



Also available with kinked leads in place of standard leads (Style 1). (see How to Order).

MF-RHS Series Tape and Reel Specifications

Devices taped using EIA-468/IEC 60286-2 standards. See table below and figures for details.

Carrier tape width W W 18 (+0.95) (+0.95) (+0.95) +1.00-05 (+0.95)	Dimension Description	IEC Mark	EIA Mark	Dimensions	Tolerance
Hold down tape No protrusion No protrusion	Carrier tape width	W	W		
Adhesive tape position W_2 $W_$	Hold down tape width	W_0	W_0		min.
Rate is producted to position W2 W2 (118) Intal. Sprocket hole position W1 W1 W1 $\frac{9}{(354)}$ $\frac{4075-0.5}{(+0301-020)}$ Sprocket hole diameter D0 D0 $\frac{4}{(157)}$ $\frac{40.2}{(\pm00078)}$ Height to seating plane (straight lead) H H H $\frac{18-20}{(5030)}$ Height to seating plane (formed lead) H0 H0 $\frac{16}{(6300)}$ $\frac{40.5}{(6020)}$ Overall height above abscissas: MF-RHS350 ~ MF-RHS650 H1 H1 H1 $\frac{38.5}{(1.701)}$ max. Overall height above abscissas: MF-RHS700 ~ MF-RHS1300 H1 H1 H1 $\frac{45.0}{(1.772)}$ max. Cutout length L $\frac{11}{(433)}$ max. max. Sprocket hole pitch P0 P0 $\frac{12.7}{(500)}$ $\frac{40.3}{(500)}$ Sprocket hole pitch P0 P0 $\frac{12.7}{(500)}$ $\frac{40.3}{(500)}$ Device pitch: MF-RHS350 ~ MF-RHS650 P P P $\frac{12.7}{(500)}$ $\frac{40.3}{(500)}$ Device pitch: MF-RHS700 ~ MF-RHS1300 P <	Hold down tape		No p	rotrusion	
Sprocket hole position W_1	Adhesive tape position	W ₂	W_2		max.
Height to seating plane (straight lead) H H $\frac{18-20}{(709-787)}$ $\frac{1}{(50078)}$ Height to seating plane (formed lead) H H $\frac{18-20}{(709-787)}$ $\frac{3.0.5}{(630)}$ $\frac{3.0.5}{(630)}$ $\frac{3.0.5}{(630)}$ $\frac{3.0.5}{(630)}$ $\frac{3.0.5}{(630)}$ $\frac{3.0.5}{(630)}$ $\frac{3.0.5}{(630)}$ $\frac{3.0.5}{(1.516)}$ max. Overall height above abscissa: MF-RHS350 ~ MF-RHS1300 H H H $\frac{3.8.5}{(1.772)}$ max. $\frac{11}{(433)}$ $\frac{1}{(433)}$	Sprocket hole position	W ₁	W ₁		
Height to seating plane (tormed lead) $H_0 = \frac{16}{16} \frac{40.5}{(630)} \frac{40.5}{(620)}$ Overall height above abscissa: MF-RHS350 ~ MF-RHS650 $H_1 = \frac{1}{1} H_1 = \frac{38.5}{(1.516)} = \frac{40.5}{(1.772)}$ Overall height above abscissa: MF-RHS700 ~ MF-RHS1300 $H_1 = \frac{45.0}{(1.772)} = \frac{11}{(1.772)} = \frac{45.0}{(1.772)}$ Cutout length $H_1 = \frac{45.0}{(1.772)} = \frac{11}{(1.772)} = \frac{40.3}{(1.772)}$ Device pitch: MF-RHS350 ~ MF-RHS650 $H_1 = \frac{1}{1} = $	Sprocket hole diameter	D ₀	D ₀		
Overall height above abscissa: MF-RHS350 ~ MF-RHS650	Height to seating plane (straight lead)	Н	Н		
Overall height above abscissa: Mir-RHS350 $^{\circ}$	Height to seating plane (formed lead)	H ₀	H ₀		
Overall height above abscissa: MF-RHS700 \sim MF-RHS300 H_1 H_1 H_1 (1.772) (1.772) (1.772) (1.433) max. Sprocket hole pitch P_0	Overall height above abscissa: MF-RHS350 ~ MF-RHS650	H ₁	H ₁		max.
Cutofit length P_0	Overall height above abscissa: MF-RHS700 ~ MF-RHS1300	H ₁	H ₁		max.
Spricket note place P_0 P_0 $(.500)$ $(\pm .012)$ Device pitch: MF-RHS350 ~ MF-RHS650 P <td>Cutout length</td> <td></td> <td>L</td> <td></td> <td>max.</td>	Cutout length		L		max.
Device pitch: MF-RHS350 ~ MF-RHS1300 P P $O(0.50)$	Sprocket hole pitch	P_0	P ₀		
Pitch tolerance $\frac{\pm 1}{(\pm.039)}$ Composite tape thickness t t t $\frac{0.9}{(.035)}$ max. Overall tape and lead thickness t_1 t_1 t_2 $\frac{2.3}{(.091)}$ max. Splice sprocket hole alignment t	Device pitch: MF-RHS350 ~ MF-RHS650	Р	Р		
Prich blefailte 20 collisectuity (\pm .039) Composite tape thickness t t t $\frac{0.9}{(.035)}$ max. Overall tape and lead thickness t ₁ t ₁ $\frac{2.3}{(.091)}$ max. Splice sprocket hole alignment 0 $\frac{\pm 0.3}{(\pm .012)}$ Front-to-back deviation Δ_h Δ_h 0 $\frac{\pm 1.0}{(\pm .039)}$ Side-to-side deviation Δ_p Δ_p 0 $\frac{\pm 1.3}{(\pm .051)}$ Ordinate to adjacent component lead: MF-RHS350 ~ MF-RHS800 P_1 P_1 P_1 $\frac{3.81}{(.150)}$ $\frac{\pm 0.7}{(\pm .028)}$ Cordinate to adjacent component lead: MF-RHS900 ~ MF-RHS1300 P_1 P_1 P_1 $\frac{7.62}{(.300)}$ $\frac{\pm 0.7}{(\pm .028)}$ Lead spacing: MF-RHS350 ~ MF-RHS800 F F $\frac{5.08}{(.200)}$ $\frac{+0.6/-0.2}{(+.024/008)}$	Device pitch: MF-RHS700 ~ MF-RHS1300	Р	Р		
Overall tape and lead thickness $t_1 \qquad t_1 \qquad \frac{1}{(.035)} \qquad \max.$ Splice sprocket hole alignment $0 \qquad \frac{\pm 0.3}{(\pm .012)}$ Front-to-back deviation $\Delta_h \qquad \Delta_h \qquad 0 \qquad \frac{\pm 1.0}{(\pm .039)}$ Side-to-side deviation $\Delta_p \qquad \Delta_p \qquad 0 \qquad \frac{\pm 1.3}{(\pm .051)}$ Ordinate to adjacent component lead: MF-RHS350 ~ MF-RHS800 $P_1 \qquad P_1 \qquad \frac{3.81}{(.150)} \qquad \frac{\pm 0.7}{(\pm .028)}$ Ordinate to adjacent component lead: MF-RHS900 ~ MF-RHS1300 $P_1 \qquad P_1 \qquad \frac{7.62}{(.300)} \qquad \frac{\pm 0.7}{(\pm .028)}$ Lead spacing: MF-RHS350 ~ MF-RHS800 $F \qquad F \qquad F \qquad \frac{5.08}{(.200)} \qquad \frac{+0.6/-0.2}{(+.024/008)}$	Pitch tolerance			20 consecutive	
Splice sprocket hole alignment t_1 t_1 t_1 t_1 t_1 t_2 t_3 t_4 t_4 t_4 t_5	Composite tape thickness	t	t		max.
Front-to-back deviation $\Delta_h \qquad \Delta_h \qquad \Delta_h \qquad 0 \qquad \frac{\pm 1.0}{(\pm .039)}$ Side-to-side deviation $\Delta_p \qquad \Delta_p \qquad 0 \qquad \frac{\pm 1.3}{(\pm .051)}$ Ordinate to adjacent component lead: MF-RHS350 ~ MF-RHS800 $P_1 \qquad P_1 \qquad \frac{3.81}{(.150)} \qquad \frac{\pm 0.7}{(\pm .028)}$ Ordinate to adjacent component lead: MF-RHS900 ~ MF-RHS1300 $P_1 \qquad P_1 \qquad \frac{7.62}{(.300)} \qquad \frac{\pm 0.7}{(\pm .028)}$ Lead spacing: MF-RHS350 ~ MF-RHS800 $F \qquad F \qquad \frac{5.08}{(.200)} \qquad \frac{+0.6/-0.2}{(+.024/008)}$	Overall tape and lead thickness	t ₁	t ₁		max.
Side-to-side deviation $\Delta_{h} \qquad \Delta_{h} \qquad 0 \qquad \frac{\pm 1.3}{(\pm .051)}$ Ordinate to adjacent component lead: MF-RHS350 ~ MF-RHS800 $P_{1} \qquad P_{1} \qquad \frac{3.81}{(.150)} \qquad \frac{\pm 0.7}{(\pm .028)}$ Ordinate to adjacent component lead: MF-RHS900 ~ MF-RHS1300 $P_{1} \qquad P_{1} \qquad \frac{7.62}{(.300)} \qquad \frac{\pm 0.7}{(\pm .028)}$ Lead spacing: MF-RHS350 ~ MF-RHS800 $F \qquad F \qquad \frac{5.08}{(.200)} \qquad \frac{+0.6/-0.2}{(+.024/008)}$	Splice sprocket hole alignment			0	
Ordinate to adjacent component lead: MF-RHS350 ~ MF-RHS800 P_1 P_1 $\frac{3.81}{(.150)}$ $\frac{\pm 0.7}{(\pm .028)}$ Ordinate to adjacent component lead: MF-RHS900 ~ MF-RHS1300 P_1 P_1 $\frac{7.62}{(.300)}$ $\frac{\pm 0.7}{(\pm .028)}$ Lead spacing: MF-RHS350 ~ MF-RHS800 F F $\frac{5.08}{(.200)}$ $\frac{+0.6/-0.2}{(+.024/008)}$	Front-to-back deviation	Δ_h	Δ_h	0	
Ordinate to adjacent component lead: MF-RHS900 ~ MF-RHS1300 P1 P1 7.62 (.300) ±0.7 (±.028) Lead spacing: MF-RHS350 ~ MF-RHS800 F F 5.08 (.200) +0.6/-0.2 (+.024/008)	Side-to-side deviation	Δ_{p}	Δ_p	0	±1.3 (±.051)
Lead spacing: MF-RHS350 ~ MF-RHS800 F F F F C300 (±.028) (±.028) Lead spacing: MF-RHS350 ~ MF-RHS800 F F F Date of spacing: MF-RHS900 MF-RHS9	Ordinate to adjacent component lead: MF-RHS350 ~ MF-RHS800	P ₁	P ₁	3.81 (.150)	
Lead spacing: MF-RHS350 ~ MF-RHS800 F F (.200) (+.024/008) Lead spacing: MF-RHS350 ~ MF-RHS800 F	Ordinate to adjacent component lead: MF-RHS900 ~ MF-RHS1300	P ₁	P ₁		
	Lead spacing: MF-RHS350 ~ MF-RHS800	F	F		
	Lead spacing: MF-RHS900 ~ MF-RHS1300	F	F	10.2 (.400)	

Continued on next page —

DIMENSIONS: $\frac{MM}{(INCHES)}$

MF-RHS Series Tape and Reel Specifications

DIMENSIONS:

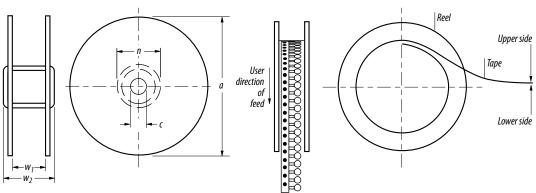
Cross section A - B

Devices taped using EIA-468/IEC 60286-2 standards. See table below and figures for details.

Dimension Description	IEC Mark	EIA Mark	Dimensions	Tolerance
Reel width including flanges and hub	W_4	w ₂	<u>62.0</u> (2.44)	max
Dimension between flanges (measured at hub)	W_3	w ₁	allow proper reeling	and unreeling
Reel diameter	А	a	370.0 (14.57)	max.
Space between flanges (at hub, excluding device)			4.75 (.187)	±3.25 (±.128)
Arbor hole diameter	С	С	<u>26.0</u> (1.024)	±12.0 (±.472)
Core diameter	N	n	<u>80</u> (3.15)	min.
Box dimensions			62 x 372 x 372 (2.44 x 14.6 x 14.6)	max.
Consecutive missing places			3	max.
Empty places per reel			Less than 0.1 %	

MM (INCHES) **Taped Component Dimensions** per EIA Mark -Figure 1 Reference plane $A = \overline{\bot}$ User direction of feed

Reel Dimensions - per EIA Mark -Figure 2



MF-RHS SERIES, REV. A, 12/23

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

Bourns® Multifuse® PPTC Resettable Fuses

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Application Notice

- Users are responsible for independent and adequate evaluation of Bourns® Multifuse® Polymer PTC devices in the user's
 application, including the PPTC device characteristics stated in the applicable data sheet.
- Polymer PTC devices must not be allowed to operate beyond their stated maximum ratings. Operation in excess of such
 maximum ratings could result in damage to the PTC device and possibly lead to electrical arcing and/or fire. Circuits with
 inductance may generate a voltage above the rated voltage of the polymer PTC device and should be thoroughly evaluated
 within the user's application during the PTC selection and qualification process.
- Polymer PTC devices are intended to protect against adverse effects of temporary overcurrent or overtemperature
 conditions up to rated limits and are not intended to serve as protective devices where overcurrent or overvoltage conditions
 are expected to be repetitive or prolonged.
- In normal operation, polymer PTC devices experience thermal expansion under fault conditions. Thus, a polymer PTC
 device must be protected against mechanical stress, and must be given adequate clearance within the user's application to
 accommodate such thermal expansion. Rigid potting materials or fixed housings or coverings that do not provide adequate
 clearance should be thoroughly examined and tested by the user, as they may result in the malfunction of polymer PTC
 devices if the thermal expansion is inhibited.
- Exposure to lubricants, silicon-based oils, solvents, gels, electrolytes, acids, and other related or similar materials may adversely affect the performance of polymer PTC devices.
- Aggressive solvents may adversely affect the performance of polymer PTC devices. Conformal coating, encapsulating, potting, molding, and sealing materials may contain aggressive solvents including but not limited to xylene and toluene, which are known to cause adverse effects on the performance of polymer PTCs. Such aggressive solvents must be thoroughly cured or baked to ensure their complete removal from polymer PTCs to minimize the possible adverse effect on the device.
- Recommended storage conditions should be followed at all times. Such conditions can be found on the applicable data sheet and on the Multifuse® Polymer PTC Moisture/Reflow Sensitivity Classification (MSL) note: https://www.bourns.com/docs/RoHS-MSL/msl mf.pdf

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