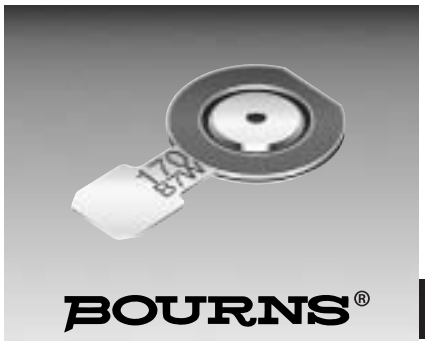

Features

- Fast tripping resettable circuit protection
- Low internal resistance
- Patents pending
- Weldable nickel terminals
- Agency recognition:

Applications

- AAA size battery cells

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MF-AAA Series - PTC Resettable Fuses

Electrical Characteristics

Model	V max. Volts	I max. Amps	I_h Rated Current	Typical Current Trip Limit						Initial Resistance Values		One Hour Post-Trip Resistance Standard Trip	Maximum Time To Trip	Tripped Power Dissipation
			Amps at 23°C	Amps at 0°C		Amps at 23°C		Amps at 60°C		Ohms at 23°C		Ohms at 23°C	Seconds at 23°C	Watts at 23°C
			Hold	Hold	Trip	Hold	Trip	Hold	Trip	Min.	R_1 Max.	Max.		Typ.
MF-AAA170	15	50	1.7	2.0	4.2	1.7	3.7	1.3	2.5	0.050	0.072	0.120	5 @ 8.5A	1.3
MF-AAA210	15	50	2.1	2.3	5.4	2.1	4.5	1.5	3.4	0.036	0.048	0.086	5 @ 10.5A	1.3

Environmental Characteristics

Operating/Storage Temperature .....-40°C to +85°C
Maximum Device Surface Temperature
in Tripped State .....125°C
Passive Aging.....+85°C, 1000 hours .....±5% typical resistance change
Humidity Aging.....+85°C, 85% R.H. 7 days .....±5% typical resistance change
Thermal Shock.....+85°C to -40°C, 20 times.....±10% typical resistance change
Solvent Resistance .....MIL-STD-202, Method 215 .....No change
Vibration.....MIL-STD-883C, Method A .....No change
Condition A

Test Procedures And Requirements For Model MF-AAA Series

Test	Test Conditions	Accept/Reject Criteria
Visual/Mech.	Verify dimensions and materials	Per MF physical description
Resistance	In still air @ 23°C	Rmin ≤ R ≤ Rmax
Time to Trip	Vmax, 23°C	T ≤ max. time to trip (seconds)
Hold Current	30 min. at Ihold	No trip
Trip Cycle Life	Vmax, Imax, 100 cycles	No arcing or burning
Trip Endurance	Vmax, 48 hours	No arcing or burning

UL File Number .....E 174545S
CSA File Number .....CA 110338
TÜV File Number R2057213

Thermal Derating Chart - I_{hold} (Amps)

Model	Ambient Operating Temperature								
	-40˚C	-20˚C	0˚C	23˚C	40˚C	50˚C	60˚C	70˚C	85˚C
MF-AAA170	2.45	2.21	2.00	1.70	1.56	1.44	1.30	1.19	1.08
MF-AAA210	2.03	2.20	2.30	2.10	1.90	1.71	1.50	1.37	1.29

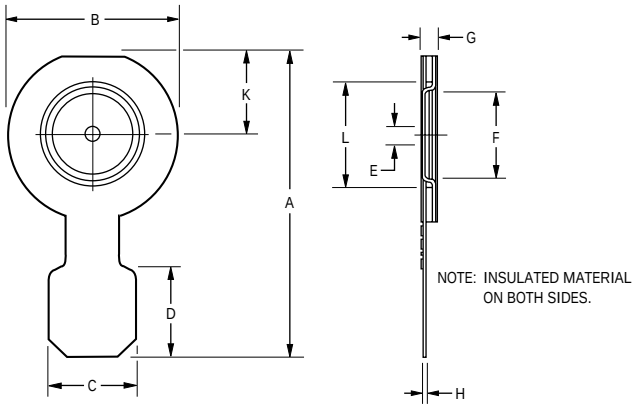
*I_{trip} is approximately two times I_{hold}.

NOTE: Model MF-AAA is agency approved for 10V.

Product Dimensions

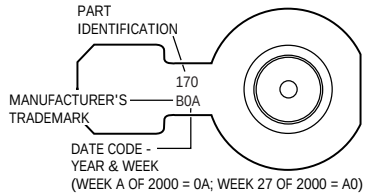
Model	A	B	C	D	E	F	G	H	K	L
MF-AAA170	16.8 ± 0.3 (.661 ± .012)	9.8 ± 0.1 (.386 ± .004)	5.0 ± 0.2 (.197 ± .008)	5.0 ± 0.2 (.197 ± .008)	1.0 MAX. (.039 MAX.)	5.00 ± 0.3 (.197 ± .012)	.90 MAX. (.035 MAX.)	.15 ± .05 (.006 ± .002)	4.5 ± 0.2 (.177 ± .008)	6.0 ± 0.5 (.236 ± .020)
MF-AAA210	16.8 ± 0.3 (.661 ± .012)	9.8 ± 0.2 (.386 ± .012)	5.0 ± 0.2 (.197 ± .008)	5.0 ± 0.2 (.197 ± .008)	1.0 MAX. (.039 MAX.)	5.00 ± 0.3 (.197 ± .012)	.90 MAX. (.035 MAX.)	.15 ± .05 (.006 ± .002)	4.5 ± 0.2 (.177 ± .008)	5.0 ± 0.5 (.197 ± .020)

DIMENSIONS = MM (IN)



Typical Part Marking

Represents total content. Layout may vary.



How to Order

MF - AAA 170 - 2

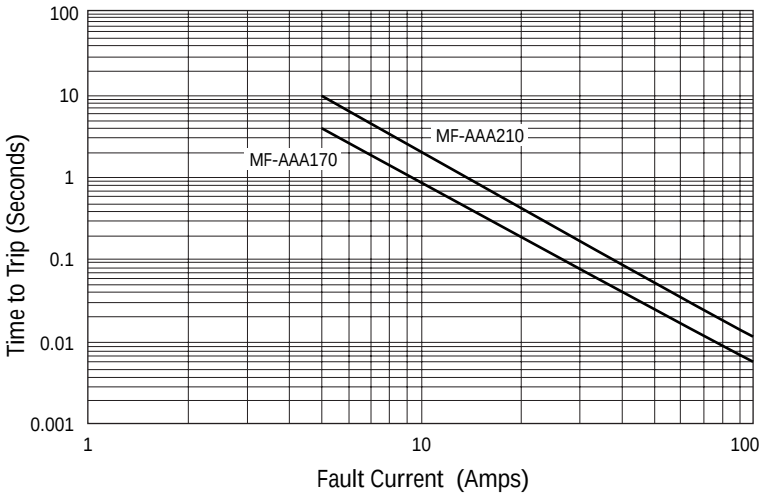
Multifuse® Product Designator

Series
AAA = Battery Cap Component

Hold Current, I_{hold}
170 or 210 (1.7 Amps, 2.1 Amps)

Packaging
Packaged per EIA 481-1
-2 = Tape and Reel

Typical Time to Trip at 23°C



MF-AAA Series Tape and Reel Specifications

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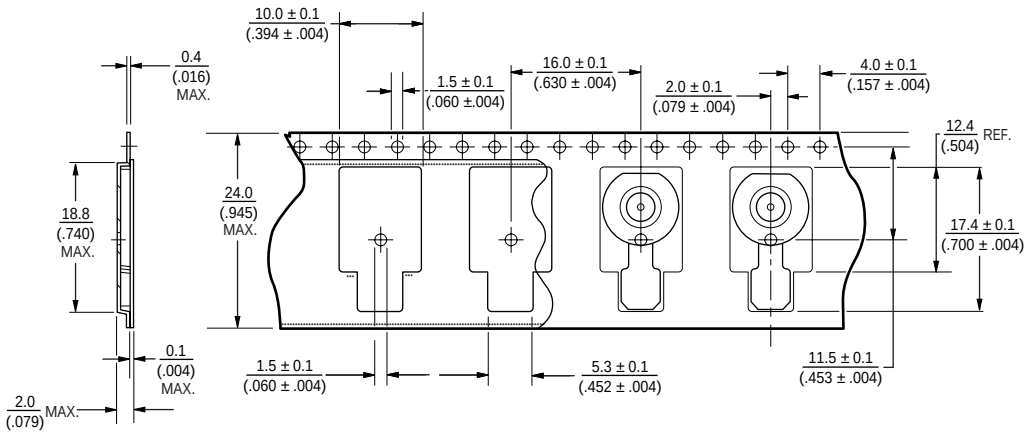
Taped Component Dimensions



Reel Dimensions