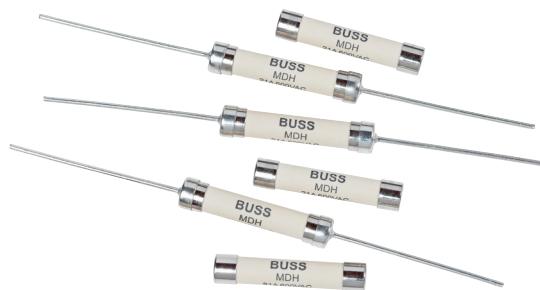


MDH-R

6.3 mm x 32 mm Ferrule and axial lead, high breaking capacity, high I^2t ceramic tube fuses

**Applications**

Primary circuit protection:

- Lighting controls
- Surge protectors
- LED and general lighting

Agency information

- cURus Recognition file number: E19180, Vol 7

**Environmental compliance****Ordering**

- Use ordering number (see page 3 for details)

Packaging suffixes

- BK (100 parts per carton)
- TR (500 parts per roll)

Electrical characteristics

	1.0 I_n min hour	2.0 I_n max minute
21 A	4	2

Product specifications

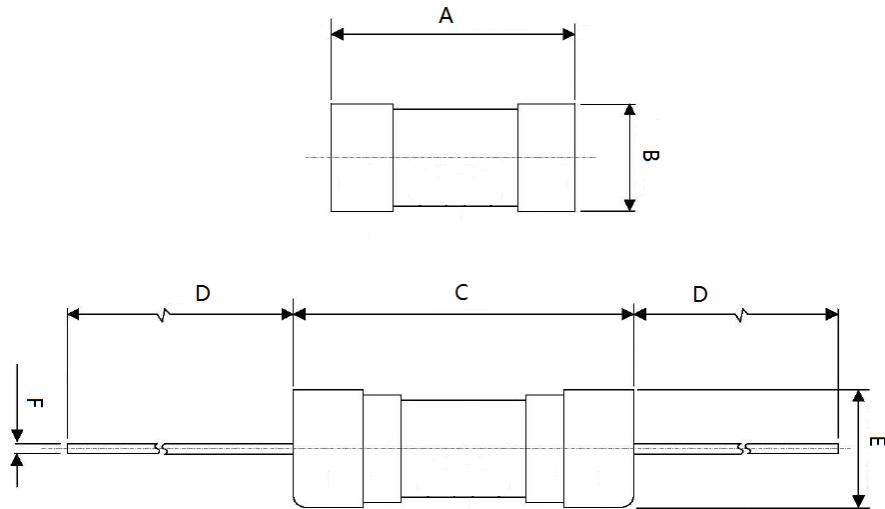
Part number ¹ Ferrule	Axial lead	Current rating (A)	Voltage rating (V _{AC})	Voltage rating (V _{DC})	Interrupting rating at rated AC voltage (50 Hz) (A _{AC})	Interrupting rating at rated DC voltage (A _{DC})	Typical D C cold resistance (Ω)	Typical pre-arc ¹ I^2t (A ² s)
MDH-21-R	MDH-V-21-R	21	600	150	200	200	0.0024	5100

1. Typical I^2t value measured at 10 times of rated current under DC.

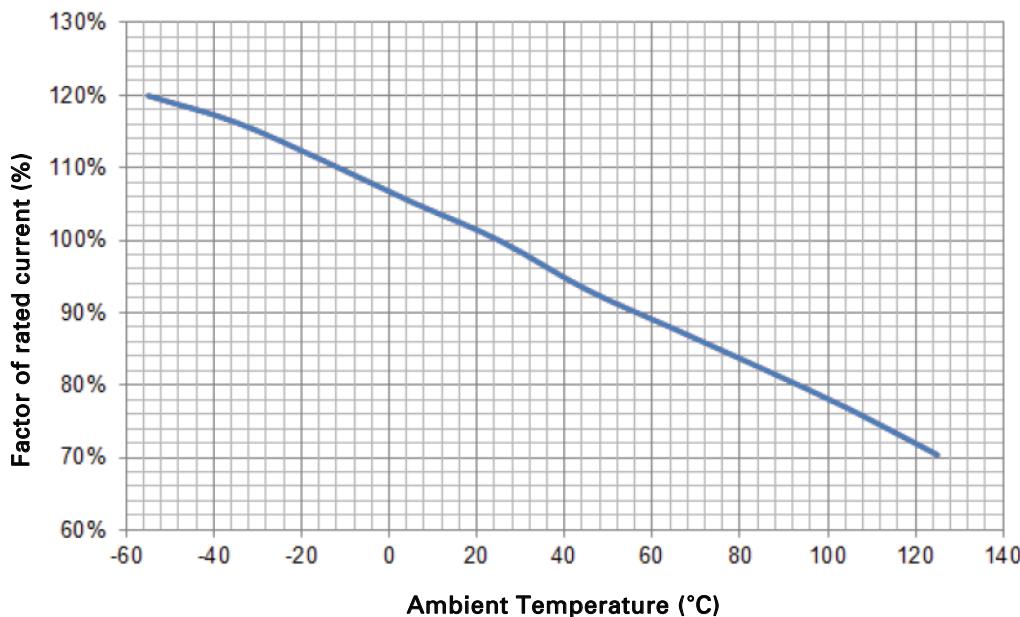
2. Part Number Definition: MDH-x-xx-R
x = Use "V" code for axial lead, leave blank for ferrule
xx = Ampere rating
-R suffix = RoHS compliant

Dimensions-mm

Drawing not to scale



A	B	C	D	E	F
31.75 ±1.12	6.35 ±0.3	32.72 ±1.12	38.1 (ref) for BK package; 20.1 (ref) for TR package*	6.985 ±0.3	1.20 ±0.05

Temperature derating curve**General specifications**

Operating temperature: -55 °C to 125 °C (with derating)

Thermal shock: MIL-STD- 202G, Method 107G, test condition B (5 cycles -65 °C to 125 °C)

Vibration: MIL-STD- 202G, Method 201A

Mechanical shock: MIL-STD- 202, Method 213, test condition A

Humidity: MIL-STD- 202G, Method 103B, Test condition A

High surge withstand: 20 cycles of 1.2/50 µs - 8/20 µs, 20 kV/10 kA surge

Ordering codes

The ordering code is the part number replacing the “.” with a “-” plus adding the packaging suffix as shown.

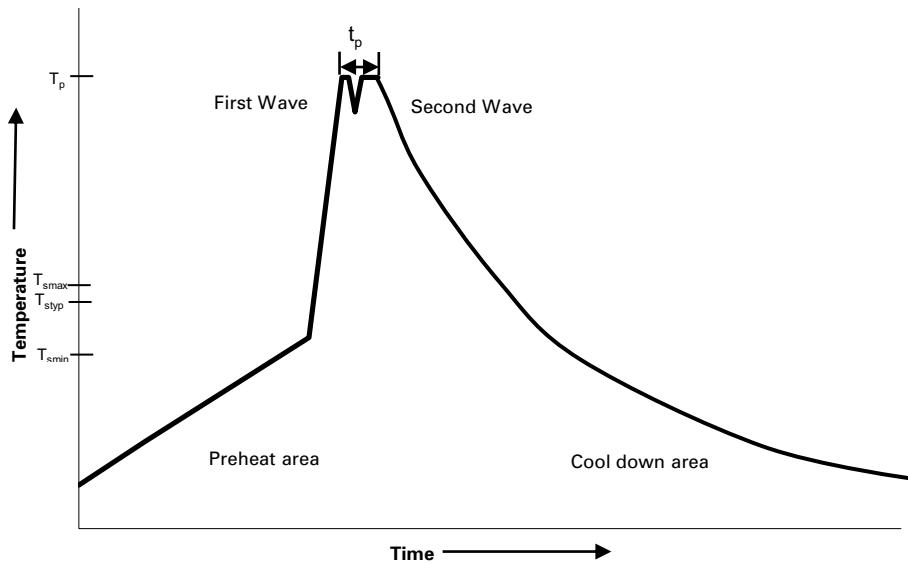
Packaging suffixes

- BK (100 parts per carton)
- TR (500 parts per roll)

Part number	Ordering codes	
	BK option	TR option
Ferrule		
MDH-21-R	MDH-21-R-BK	
Axial lead		
MDH-V-21-R	MDH-V-21-RBK	MDH-V-21-RTR

Through-hole wave solder profile (axial lead only)

Reflow soldering not recommended



Reference EN 61760-1:2006

Profile Feature	Standard SnPb Solder	Lead (Pb) Free Solder
Preheat	<ul style="list-style-type: none">Temperature min. (T_{smin})Temperature typ. (T_{styp})Temperature max. (T_{smax})Time (T_{smin} to T_{smax}) (t_s)	<ul style="list-style-type: none">100°C120°C130°C70 seconds
Δ preheat to max Temperature	150°C max.	150°C max.
Peak temperature (T_p)*	235°C – 260°C	250°C – 260°C
Time at peak temperature (t_p)	10 seconds max 5 seconds max each wave	10 seconds max 5 seconds max each wave
Ramp-down rate	~ 2 K/s min ~3.5 K/s typ ~5 K/s max	~ 2 K/s min ~3.5 K/s typ ~5 K/s max
Time 25°C to 25°C	4 minutes	4 minutes

Manual solder

350°C, 4-5 seconds. (by soldering iron), generally manual, hand soldering is not recommended.

Life Support Policy: Eaton does not authorize the use of any of its products for use in life support devices or systems without the express written approval of an officer of the Company. Life support systems are devices which support or sustain life, and whose failure to perform, when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in significant injury to the user.

Eaton reserves the right, without notice, to change design or construction of any products and to discontinue or limit distribution of any products. Eaton also reserves the right to change or update, without notice, any technical information contained in this bulletin.

Eaton
Electronics Division
1000 Eaton Boulevard
Cleveland, OH 44122
United States
Eaton.com/electronics

© 2022 Eaton
All Rights Reserved
Printed in USA
Publication No. 10530 CO-0236543
July 2022

Eaton is a registered trademark.

All other trademarks are property of their respective owners.

Follow us on social media to get the latest product and support information.

