



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

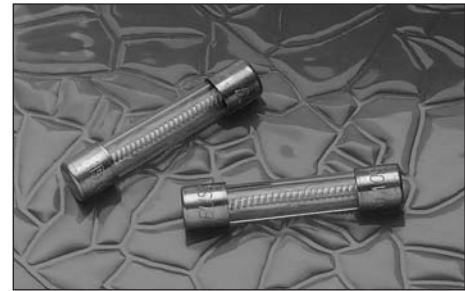
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# 1/4" x 1 1/4" Time-Delay, Glass Tube Fuses MDL Series

## Description

- Time-delay
- Optional axial leads available
- 1/4" x 1 1/4" (6.4 x 31.7mm) physical size
- Glass tube, nickel-plated brass endcap construction
- UL Listed product meets standard 248-14



Electrical Characteristics		
Rated Current	% of Amp Rating	Opening Time
1/16 - 30A	100%	None
	135%	60 minutes maximum
	200%	120 seconds maximum
1/16 - 3A	200%	5 seconds minimum
3-2/10 - 8A	200%	12 seconds minimum

## Agency Information

- UL Listed Card: MDL 1/16 - 8A (Guide JDYX, File E19180)
- UL Recognized Card: MDL 9 - 30A (Guide JDYX2, File E19180)
- CSA Certification Card: MDL 1/16 - 8A (Class No. 1422-01)
- CSA Component Acceptance: MDL 9-30A (Class No. 1422-30)
- CE

## Environmental Data

- Shock: 1A thru 30A – MIL-STD-202, Method 207, (HI Shock)
- Vibration: 1/4A thru 30A – MIL-STD-202, Method 204, Test Condition C (Except 5g, 500HZ)

## Ordering

Specify packaging code

- Insert packaging code prefix before part number. E.g., BK (or BK1)-MDL-5-R

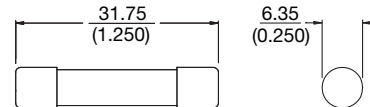
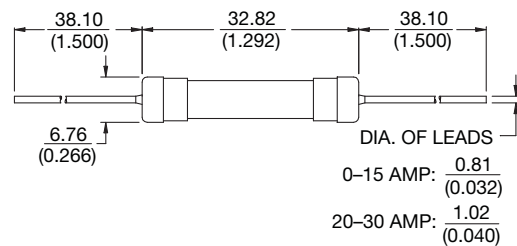
Specify option codes if desired

- For axial leads, insert "V" between catalog series and amp rating. E.g., BK-MDL-V-5-R

- For board washable, insert "B" between catalog series and amp rating. E.g., BK-MDL-B-5-R
- For axial leads and board washable, insert "B" then "V" between catalog series and amp rating. E.g., BK-MDL-BV-5-R

## Dimensions - mm (in)

Drawing Not to Scale



## Specifications

Part Number	Voltage Rating Vac	AC Interrupting Rating* (amps)@			Typical DC Cold Resistance** (Ω)	Typical Melting I <sup>††</sup> AC	Typical Voltage Drop‡
		250Vac	125Vac	32Vac			
MDL-1/16-R	250	35	10000	-	45.6	0.0046	2.79
MDL-1/10-R	250	35	10000	-	15.68	0.0420	1.95
MDL-1/8-R	250	35	10000	-	12.238	0.0422	1.52
MDL-3/16-R	250	35	10000	-	4.81	0.116	1.05
MDL-2/10-R	250	35	10000	-	5.234	0.314	0.972
MDL-1/4-R	250	35	10000	-	3.208	0.447	0.965
MDL-3/10-R	250	35	10000	-	2.046	0.412	0.808
MDL-3/8-R	250	35	10000	-	1.567	0.982	1.46
MDL-1/2-R	250	35	10000	-	0.943	1.656	1.27
MDL-3/4-R	250	35	10000	-	0.397	4.343	1.01
MDL-1-R	250	35	10000	-	0.273	11.498	0.995
MDL-1-1/4-R	250	100	10000	-	0.205	86.2	0.722
MDL-1-1/2-R	250	100	10000	-	0.156	22.7	0.721
MDL-2-R	250	100	10000	-	0.116	62.3	0.644
MDL-2-1/4-R	250	100	10000	-	0.096	49.6	0.535
MDL-2-1/2-R	250	100	10000	-	0.081	63.1	0.410
MDL-3-R	250	100	10000	-	0.057	67.5	0.345
MDL-4-R	250	200	10000	-	0.038	19.3	0.187
MDL-5-R	250	200	10000	-	0.025	32.0	0.160
MDL-6-R	250	200	10000	-	0.022	37.4	0.155
MDL-6-1/4-R	250	200	10000	-	0.02	38.7	0.152
MDL-7-R	250	200	10000	-	0.018	42.7	0.140
MDL-8-R	250	200	10000	-	0.015	47.8	0.119
MDL-9-R	32	-	-	1000	0.012	51.5	0.124
MDL-10-R	32	-	-	1000	0.01	64.4	0.114
MDL-15-R	32	-	-	1000	0.005	354.0	0.130
MDL-20-R	32	-	-	1000	0.004	2914.0	0.530
MDL-25††	32	-	-	1000	0.01225	15221.0	0.30
MDL-30††	32	-	-	1000	0.0011	15581.0	0.40

\* Interrupting Ratings (Interrupting ratings were measured at 70% - 80% power factor on AC)

\*\* DC Cold Resistance (Measured at ≤10% of rated current)

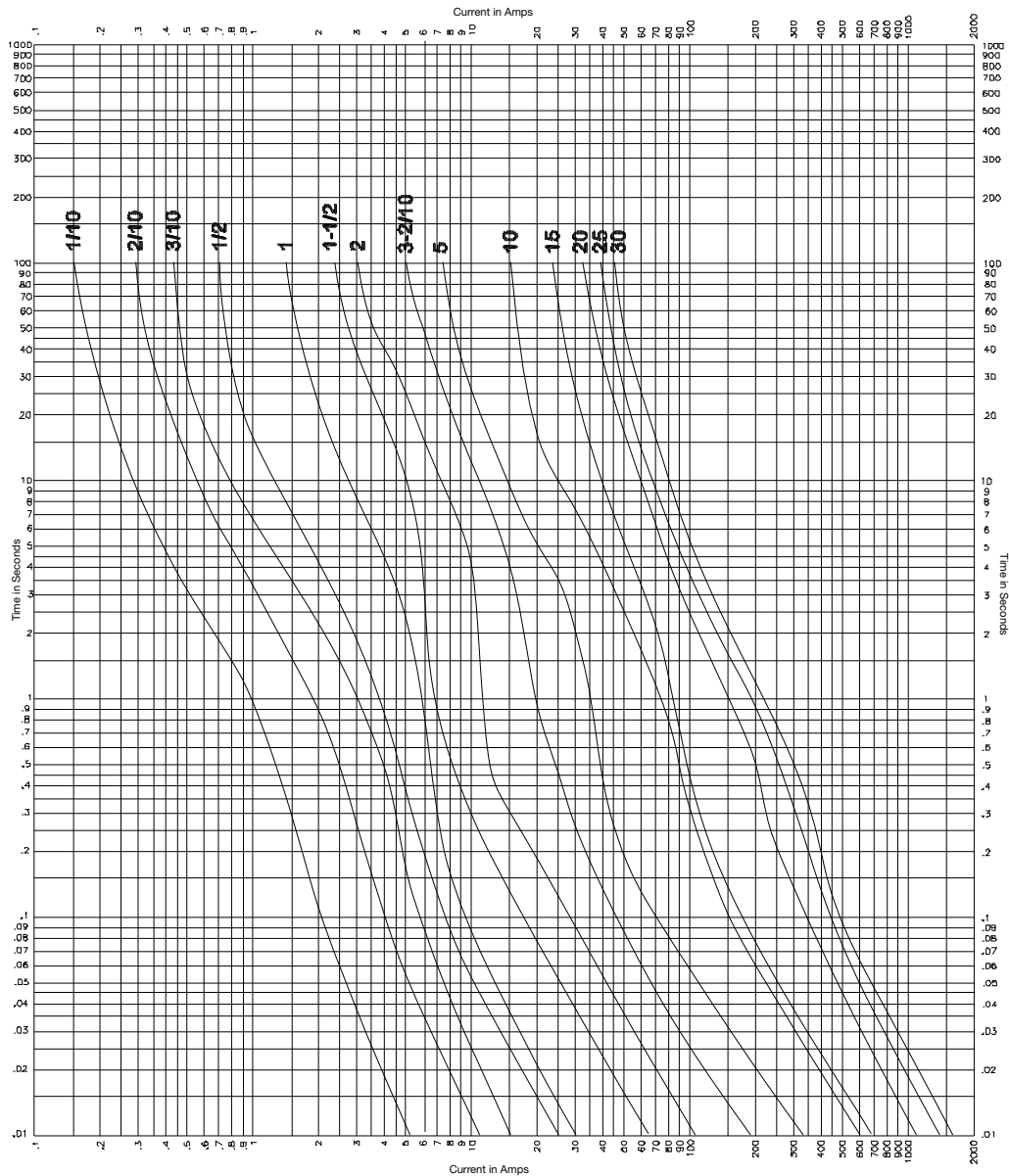
† Typical Melting I<sup>††</sup> (A<sup>2</sup>Sec) (I<sup>††</sup> was measured at listed interrupting rating and rated voltage.)

‡ Typical Voltage Drop (Voltage drop was measured at 25°C±3°C ambient temperature at rated current)

†† MDL-25 & MDL-30 not available in RoHS compliant construction.



# Time-Current Curve



Packaging Code	
<b>Packaging Code</b>	<b>Description</b>
<b>BK</b>	100 fuses packed into a cardboard carton
<b>BK1</b>	1,000 fuses packed into a cardboard carton
<b>BK8</b>	8,000 fuses packed into a cardboard carton

Option Code	
<b>Option Code</b>	<b>Description</b>
<b>B</b>	Sealed to withstand aqueous cleaning (Board Washable)
<b>V</b>	Axial leads - copper tinned wire with nickel plated brass overcaps

The only controlled copy of this Data Sheet is the electronic read-only version located on the Cooper Bussmann Network Drive. All other copies of this document are by definition uncontrolled. This bulletin is intended to clearly present comprehensive product data and provide technical information that will help the end user with design applications. Cooper Bussmann reserves the right, without notice, to change design or construction of any products and to discontinue or limit distribution of any products. Cooper Bussmann also reserves the right to change or update, without notice, any technical information contained in this bulletin. Once a product has been selected, it should be tested by the user in all possible applications.

Life Support Policy: Cooper Bussmann 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.

