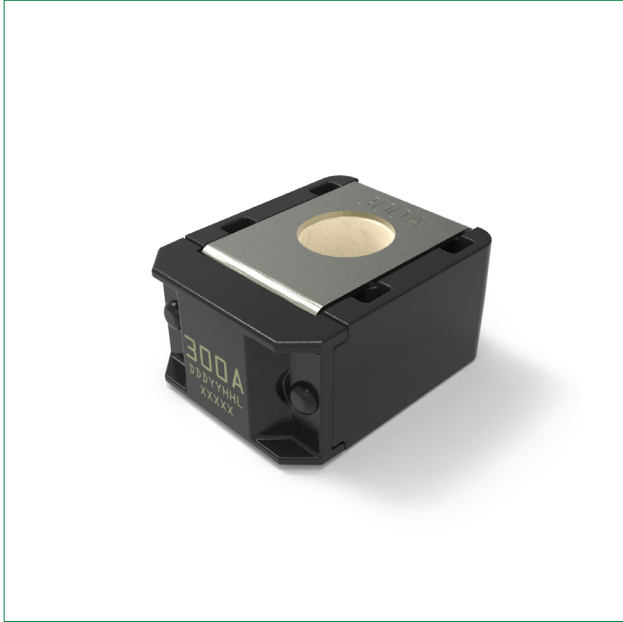


# ZCASE® M10 Single

## Bolt-down Fuses – Rated 32 V DC

RoHS



### Description

ZCASE® M10 32V automotive fuses take up minimal space while providing time-delayed/Slo-Blo® circuit protection similar to MEGA® 32V fuses. Typically used to protect starters, ZCASE M10 fuses with ampere ratings of 80 A to 250 A provide full wire protection. Use fuses rated 300–600 A only for short circuit protection.

### Features & Benefits

- Can mount on a battery post, starter, or busbar
- High-contrast ampere rating stamp aids identification
- 425 A fuse, 600 A fuse, and shunt offered in addition to fuses listed in ISO standard
- One-bolt connection

### Applications

- Cars / SUVs
- Trucks
- Offroad vehicles
- Buses
- Watercraft as approved by Littelfuse®

### Additional Information



Resources



Samples

[See Disclaimer Notice](#)

### Specifications

<b>Voltage Rating:</b>	32 V DC
<b>Interrupting Rating:</b>	2000 A @ 32 V DC
<b>Recommended Environmental Temperature:</b>	–40 °C to +125 °C
<b>Terminals Material:</b>	Tin-plated copper alloy
<b>Housing Material:</b>	PPA-GF33HS (UL 94 Flammability rating of HB)
<b>Typical Weight per Fuse:</b>	22 g
<b>Mounting Torque M10:</b>	18 Nm ± 2 Nm
<b>Insulating Tube:</b>	Ceramic

### Ordering Information

Part Number	Current Rating (A)	Package Size
3298XXX.ZXM10	80 – 600 & SHUNT	480

# ZCASE® M10 Single

## Bolt-down Fuses – Rated 32 V DC

### Ratings

Part Number	Current Rating (A)	Test Cable Size (mm <sup>2</sup> )	Typ. Voltage Drop (mV)	Typ. Cold Resistance (mΩ)	Typ. I <sup>2</sup> t (A <sup>2</sup> s)
3298080_	80	10	95	0.78	32 000
3298100_	100	16	80	0.57	23 200
3298125_	125	16	90	0.46	51 000
3298150_	150	25	78	0.34	81 600
3298175_	175	25	97	0.29	108 600
3298200_	200	35	94	0.26	126 400
3298225_	225	35	80	0.18	126 900
3298250_	250	50	82	0.17	160 900
3298300_ <sup>2</sup>	300	35	28 <sup>3</sup>	0.14	305 300
3298350_ <sup>2</sup>	350	35	29 <sup>3</sup>	0.10	583 900
3298400_ <sup>2</sup>	400	50	27 <sup>3</sup>	0.08	913 300
3298425_ <sup>1 2</sup>	425	50	27 <sup>3</sup>	0.08	602 770
3298500_ <sup>2</sup>	500	50	32 <sup>3</sup>	0.08	1 250 000
3298600_ <sup>1 2</sup>	600	50	32 <sup>3</sup>	0.05	3 140 000
3298900_ <sup>1</sup>	SHUNT	50	34	-	-

<sup>1</sup> Not mentioned in ISO standards

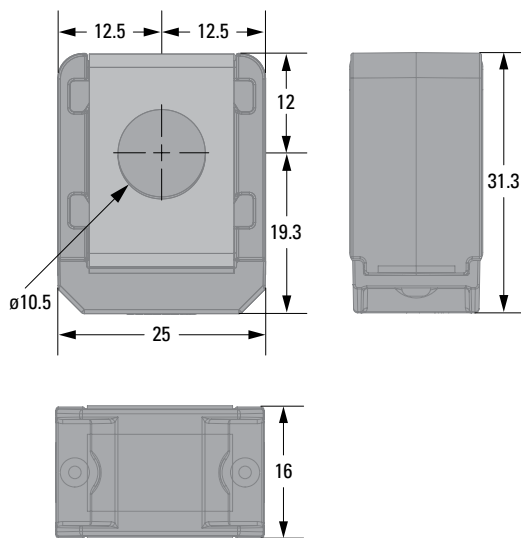
<sup>2</sup> Short circuit protector only

<sup>3</sup> Voltage drop measurements for short circuit protectors taken at 50 % of rated current.

**Note:** The typical I<sup>2</sup>t is an average value calculated from the breaking capacity tests by using the melting time before the arcing occurs.

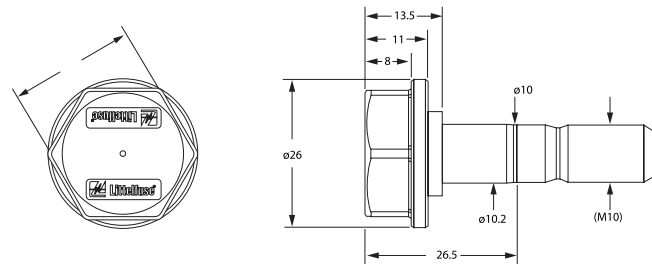
### Dimensions

Dimensions in mm. Please refer to the outline drawing for dimensions and tolerances.



### Assembly Components Sold Separately

Part Number	Description
902-192	Insulated M10 Bolt Required for Installation and Operation

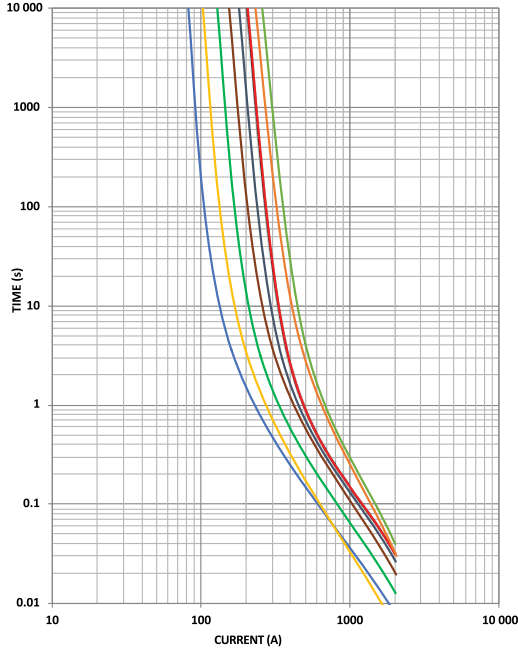


**Note:** Please contact your Littelfuse representative for application support and information on mating hardware.

# ZCASE® M10 Single

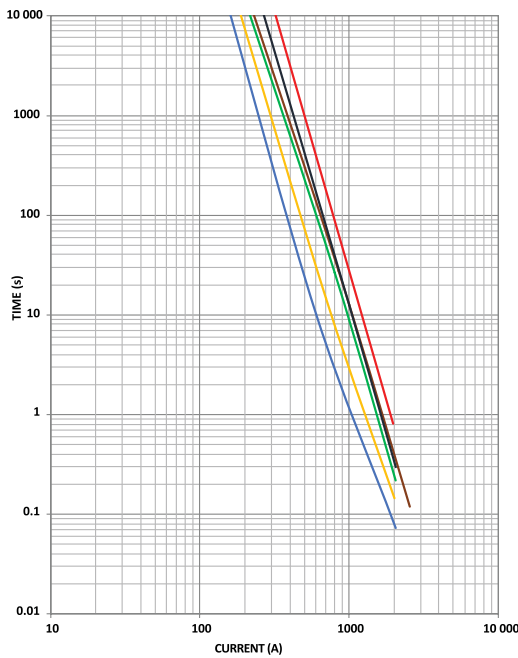
## Bolt-down Fuses – Rated 32 V DC

### Time-Current Characteristic



% of Rating	Opening Time Min. / Max. (s)		
	40 - 250 A	300 - 500 A	600 A
50	- / -	14 400 / -	14 400 / -
100	14 400 / -	- / -	- / -
135	120 / 1800	- / -	- / -
200	1 / 15	1 / 40	1 / 40
350	0.3 / 5	0.3 / 5	0.3 / 5
500	- / -	- / -	0.1 / 1
600	0.1 / 1	0.1 / 1	- / -

- 80 A
- 100 A
- 125 A
- 150 A
- 175 A
- 200 A
- 225 A
- 250 A



- 300 A
- 350 A
- 400 A
- 425 A
- 500 A
- 600 A

**Note:** Current recommendation may be impacted by the final condition of the application (terminals characteristics, wire size etc.). Please contact Littelfuse® for more information.

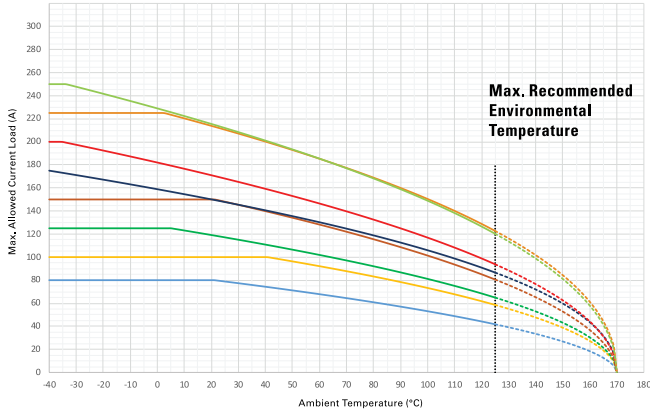
# ZCASE® M10 Single

## Bolt-down Fuses – Rated 32 V DC

### Typical Derating Curves

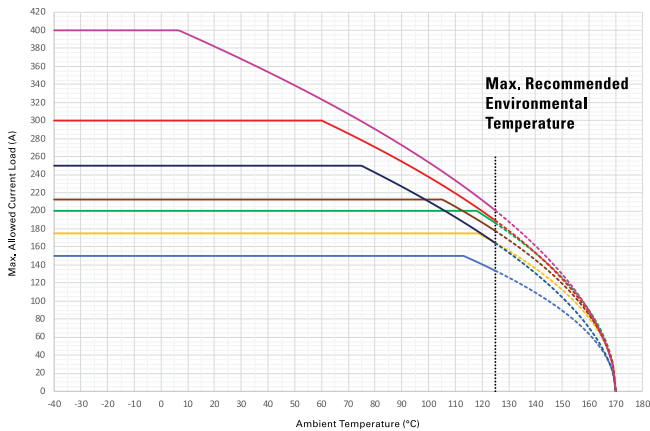
Temperature security margin is 20%.

Please contact Littelfuse® for Details Regarding Derating Test Set Up.



	Max. allowed current load (A) at ambient temperature based on typical derating						
	-40 °C	0 °C	20 °C	65 °C	85 °C	110 °C	125 °C
<b>80 A</b>	80	80	80	66	59	49	42
<b>100 A</b>	100	100	100	90	81	68	59
<b>125 A</b>	125	125	119	100	89	75	65
<b>150 A</b>	150	150	150	125	112	94	81
<b>175 A</b>	175	159	150	128	116	99	87
<b>200 A</b>	200	182	171	143	129	108	94
<b>225 A</b>	225	225	214	181	165	140	123
<b>250 A</b>	250	229	215	181	164	138	120
<b>300 A</b>	150	150	150	150	150	150	134
<b>350 A</b>	175	175	175	175	175	175	164
<b>400 A</b>	200	200	200	200	200	200	186
<b>425 A</b>	213	213	213	213	213	205	178
<b>500 A</b>	250	250	250	250	235	193	164
<b>600 A</b>	300	300	300	293	263	219	189
<b>SHUNT</b>	400	400	382	316	282	234	200

- 80 A
- 100 A
- 125 A
- 150 A
- 175 A
- 200 A
- 225 A
- 250 A



- 300 A
- 350 A
- 400 A
- 425 A
- 500 A
- 600 A
- SHUNT

**Note:** Current recommendation may be impacted by the final condition of the application (terminals characteristics, wire size etc.). Please contact Littelfuse® for more information.

**Disclaimer Notice** - Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and may not be used in, all applications. Read complete Disclaimer Notice at <https://www.littelfuse.com/legal/disclaimers/product-disclaimer.aspx>