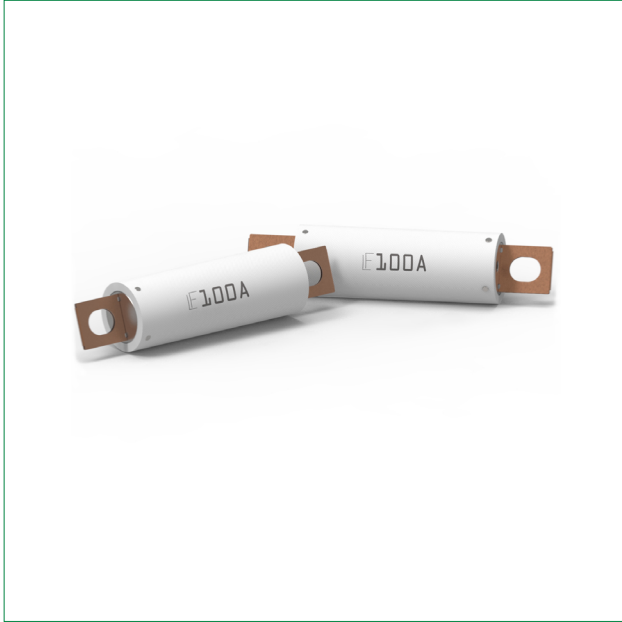


25EV1K Series

High Voltage Fuses – Rated 1000 V DC

RoHS



Description

The 25EV1K fuse is designed for protection of high-voltage circuits in electric and hybrid electric vehicles.

Features & Benefits

- Interrupting Rating of 30 kA @ 1000 V DC
- Voltage Rating of 1000 V DC
- Typical weight of 100 g
- Operates from -40 °C to +125 °C
- Part number 125A is rated 900V
- Melamine body with UL 94 flammability ratings of V-0
- End caps in zinc alloy
- Terminal in copper alloy
- Mounting Torque of 12 ±1 Nm (ISO prescription)
- Refers to ISO 8820-8

Applications

- Use 25EV1K fuses to protect circuits in EV and Hybrid passenger vehicles

[See Disclaimer Notice](#)

Specifications

Voltage Rating:	70 A - 100 A: 1000 V DC 125 A: 900 V DC
Interrupting Rating:	30 kA @ 1000 V DC 30 kA @ 900 V DC
Recommended Environmental Temperature:	-40 °C to +125 °C
Terminals Material:	Copper Alloy
Housing Material:	Melamine (U.L. 94 Flammability rating – V0)
End caps Material:	Zinc Alloy
Recommended Mounting Torque:	12 ±1 Nm (ISO prescription)
Typical Weight per Fuse:	100 g
Refers To:	ISO 8820-8

Additional Information



Resources



Samples

Ordering Information

Part Number	Current Rating (A)	Termination	Package Size
25EV1Kxxx.ZXBDM	70 A - 125 A	M8 Bolt Down	60

25EV1K Series

High Voltage Fuses – Rated 1000 V DC

Ratings

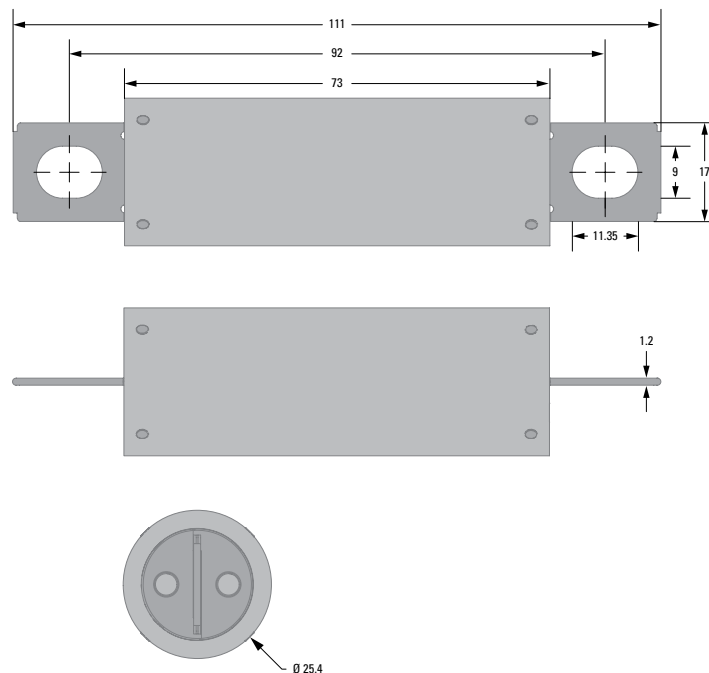
Part Number	Current Rating (A)	Test Cable Size (mm ²)	Typ. Voltage Drop at 100% I _r (mV)	Typ. Cold Resistance (mΩ)	Typical Melting I ² t (A ² s)
25EV1K070.ZXBDM	70	10	240	2.41	13 500
25EV1K080.ZXBDM	80	10	210	1.76	17 000
25EV1K090.ZXBDM	90	20	170	1.22	19 700
25EV1K100.ZXBDM	100	20	210	1.16	22 200
25EV1K125.ZXBDM ²	125	20	210	0.83	48 300

Note 1: The typical I²t is an average value calculated from the breaking capacity tests by using the melting time before the arcing occurs.

Note 2: Part number 125A is rated 900V.

Dimensions

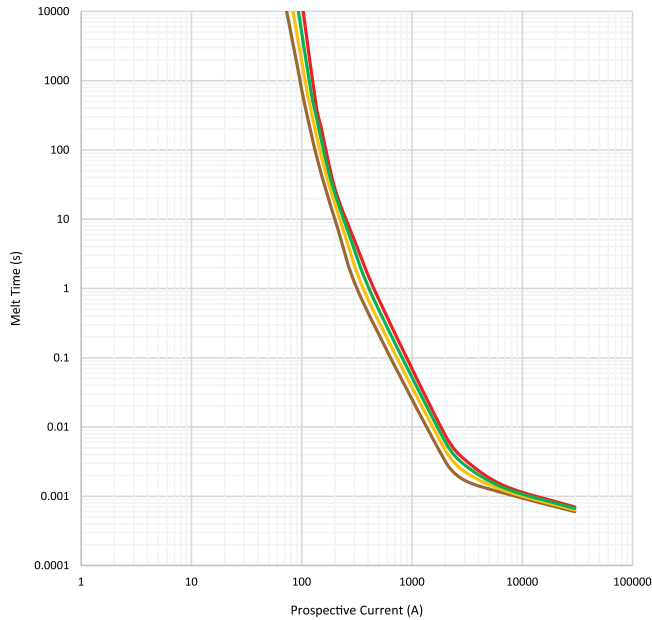
Dimensions in mm. Please refer to the outline drawing for dimensions and tolerances.



25EV1K Series

High Voltage Fuses – Rated 1000 V DC

Time-Current Characteristic



% of Rating	Opening Time Min. / Max. (s)
135	150 / 3600
150	20 / 1500
200	1 / 300
300	0.2 / 30
500	0.05 / 1

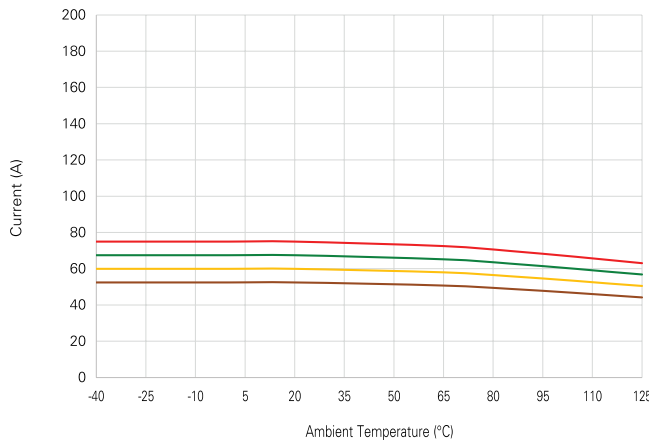
— 70 A
 — 80 A
 — 90 A
 — 100 A

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

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
70 A	53	53	53	51	49	46	44
80 A	60	60	60	58	56	53	51
90 A	68	68	68	65	63	59	57
100 A	75	75	75	73	70	66	63

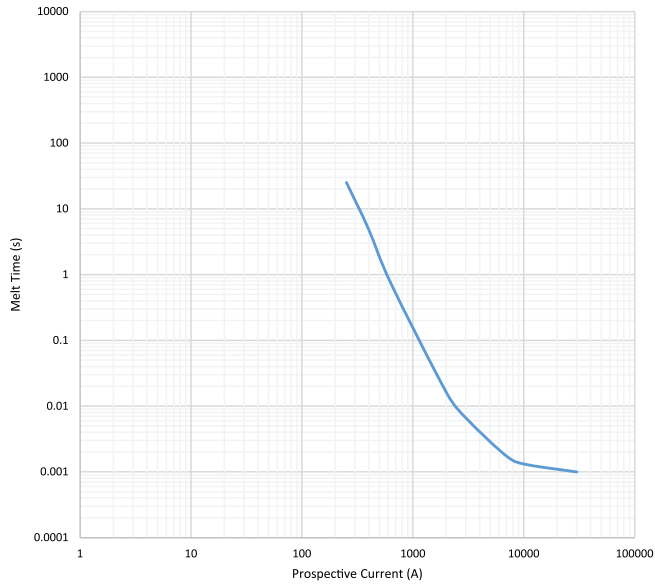
— 70 A
 — 80 A
 — 90 A
 — 100 A

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

25EV1K Series

High Voltage Fuses – Rated 1000 V DC

Time-Current Characteristic



% of Rating	Opening Time Min. / Max. (s)
200	1 / 300
300	0.2 / 30
500	0.05 / 1

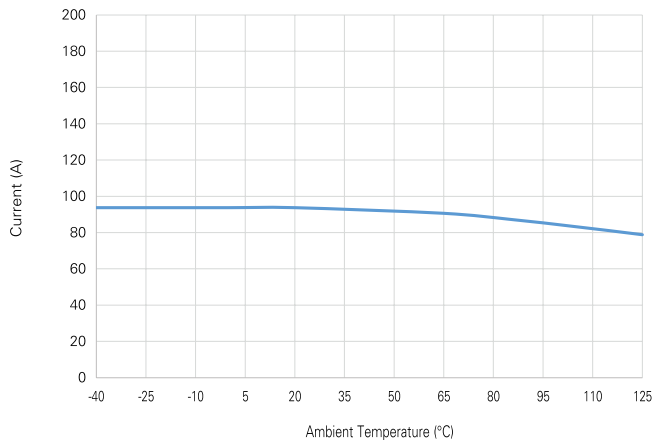
— 125 A

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

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
125 A	94	94	94	91	87	83	79

— 125 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.

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