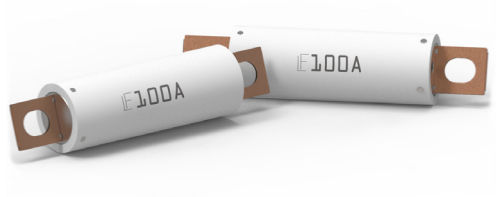
25EV1K Series

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 (excluding 125 A)
- Voltage Rating of 1000 V dc (excluding 125 A)
- Typical weight of 100 g
- Operates from -40 °C to +125 °C
- Melamine body with UL 94 flammability rating of V-0
- End caps in zinc alloy
- Terminal in copper alloy
- Mounting Torque of 12 ± 1 N · m (ISO prescription)
- Refers to ISO 8820-8

Applications

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

See Disclaimer Notice

Additional Information

Resources

Samples

Specifications

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

Ordering Information

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

Plating and alternative terminal options may be offered. Contact Littelfuse for feedback on your applications needs.

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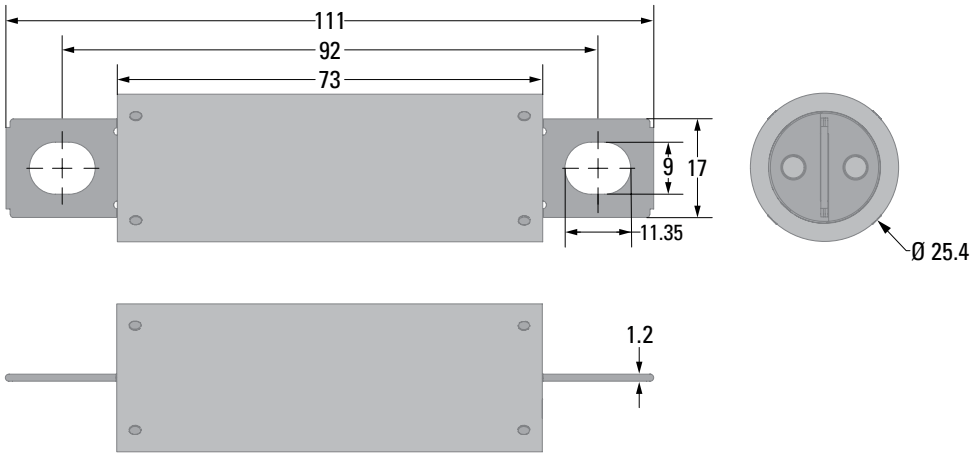
Ratings

Part Number	Current Rating (A)	Test Cable Size (mm²)	Typ. Voltage Drop at 100% Ir (mV)	Typ. Cold Resistance (mΩ)	Typ. Melting I²t (A²s)
25EV1K070.ZXBDM	70	10	240	2.41	13 500
25EV1K080.ZXBDM	80	10	170	1.39	17 000
25EV1K090.ZXBDM	90	20	170	1.22	19 700
25EV1K100.ZXBDM	100	20	210	1.16	22 200
25EV1K125.ZXBDM[1]	125	20	210	0.83	48 300

Note 1: Part number 125A is rated 900V dc.

Dimensions

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



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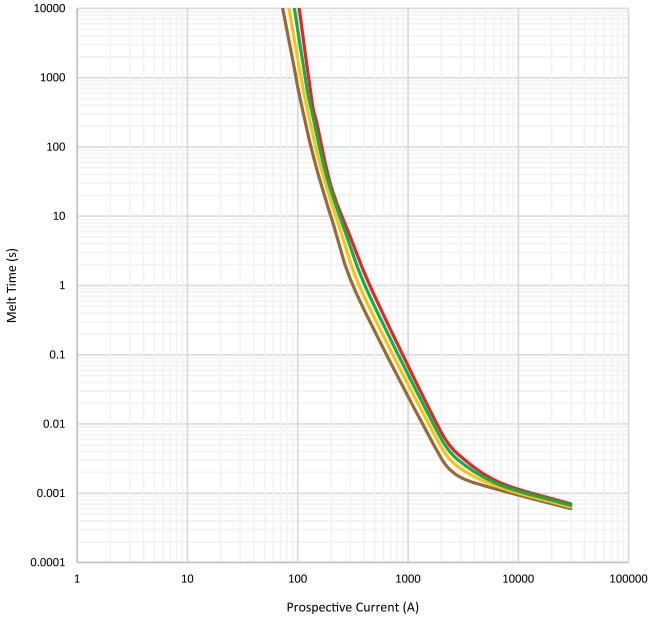
Time-Current Characteristic



% of Rating	Opening Time Min. / Max. (s)
100	14 400 / –
135	150 / 3600
150	20 / 1500
200	1 / 300
300	0.2 / 30
500	0.05 / 2

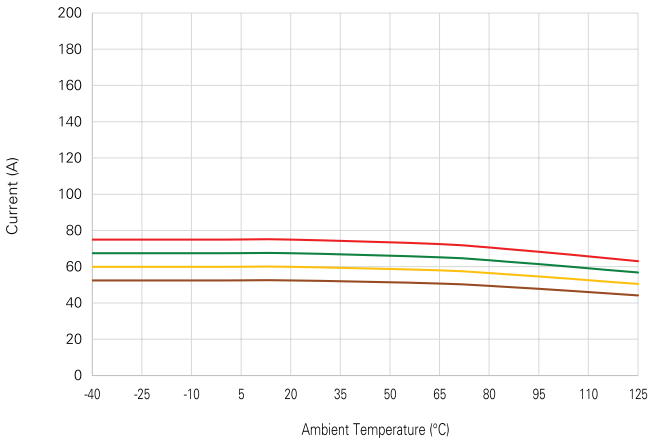
70 A
80 A
90 A
100 A

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 Rerating Curves

Temperature security margin is 25%.

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



	Max. allowed current load (A) at ambient temperature based on typical rerating						
	-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.

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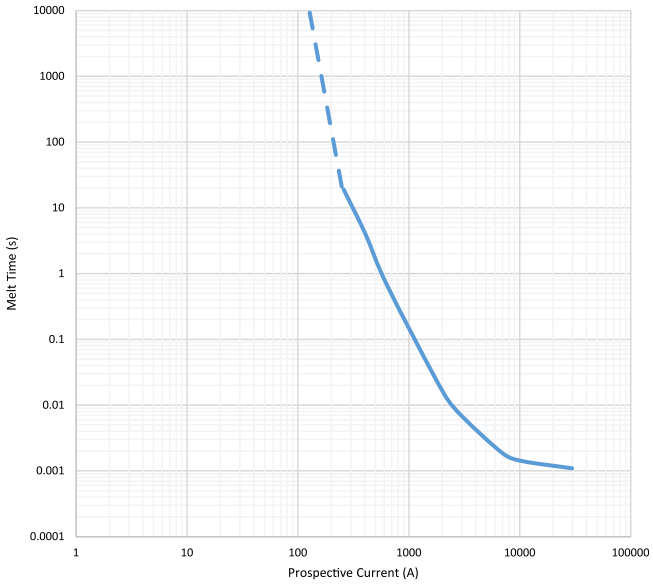
High Voltage Fuses – Rated 1000 V DC

Time-Current Characteristic



% of Rating	Opening Time Min. / Max. (s)
100	14400 / –
200	1 / 300
300	0.2 / 30
500	0.05 / 2

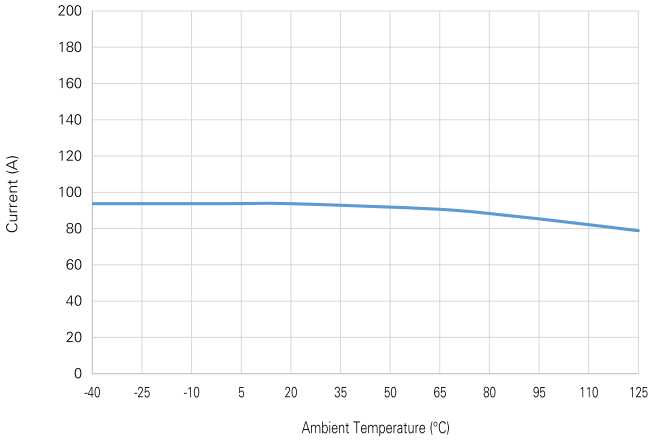
125 A

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 Rerating Curves

Temperature security margin is 25%.

Please contact Littelfuse® for Details Regarding Rerating 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.