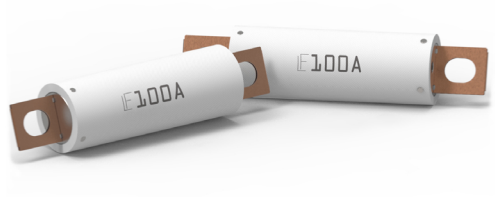
25EV1K Series

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
- Refers to ISO 8820-8
- 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)

Additional Information

Resources

Samples

Applications

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

See Disclaimer Notice

Specifications

Voltage Rating:	1000 V DC
Interrupting Rating:	30 kA @ 1000 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

Ordering Information

Part Number	Current Rating (A)	Termination	Package Size
25EV1Kxxx.ZXBDM	70 A - 125 A	M8 Bolt Down	56

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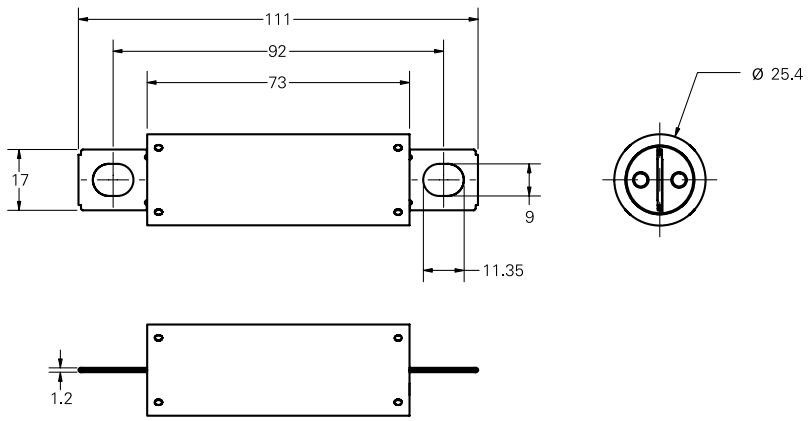
Ratings

Part Number	Current Rating (A)	Test Cable Size (mm²)	Typ. Voltage Drop at 100% Ir (mV)	Typ. Cold Resistance (mΩ)	Typical Melting I²t (A²s)
25EV1K070.ZXBDM*	70	10	240	2.41	8500
25EV1K080.ZXBDM*	80	10	210	1.76	15 000
25EV1K090.ZXBDM*	90	20	170	1.22	17 000
25EV1K100.ZXBDM*	100	20	210	1.16	21 000
25EV1K125.ZXBDM*	125	20	180	0.85	55 000

***** Products in development - Final values for voltage drop, resistance, melting I²t and T/C curves will be generated from PV tests data.
Please contact Littelfuse® for more details regarding availability timing.
Note: The typical I²t 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.



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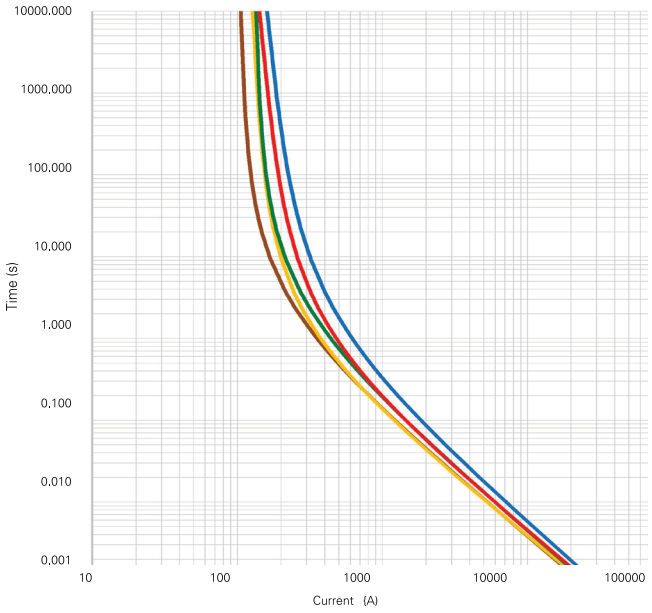
Time-Current Characteristic



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

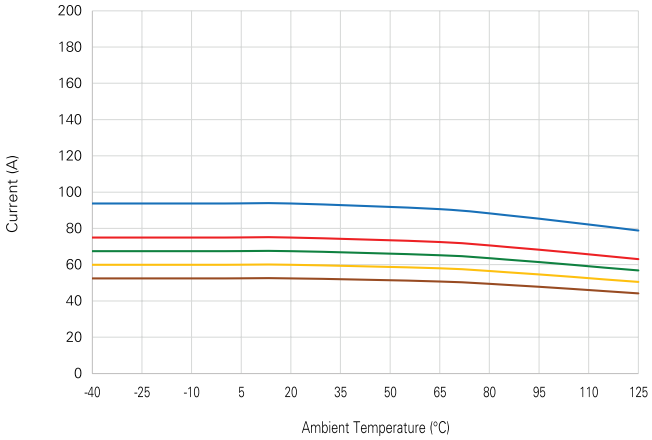
70 A
80 A
90 A
100 A
125 A

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 20%.

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
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
125 A	94	94	94	91	87	83	79

70 A
80 A
90 A
100 A
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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