Surface Mount Fuse, 5.3 x 16 mm, Time-Lag T, 277 VAC / 250 VDC, Breaking Capacity 1500 A

new

SMD fuse UMT-H

UL 248-14 · 277 VAC · 250 VDC · Time-Lag T

See below:
Approvals and Compliances

Description

- 26 rated currents from 160 mA to 50 A
- Square design: 5.3 x 16
- Impermeable to potting compound used to achieve hermetic seal for use in intrinsically safe applications according to ATEx and IECEx requirements.

Unique Selling Proposition

- High breaking capacity up to 1500 A
- High rated voltages up to 277 VAC / 250 VDC
- Compact design
- Suitable for pulse-shaped continuous currents

Applications

- Primary protection on SMD PCBs
- Sensors
- Power supplies
- Intrinsically Safe
- Illumination
- Battery protection

References

Fuse Kit Fuse Kit UMT-H

Weblinks

pdf data sheet, html datasheet, General Product Information, Distributor-Stock-Check, Detailed request for product, Microsite, Video

Application Note Primary Protection in Equipmentwith further information on increased Pulse Strength and their test conditions according to international standards see Impulse Withstand Voltage

Technical Data

Rated Voltage	250 - 277 VAC, 72 - 250 VDC
Rated current	0.16 - 50 A
Breaking Capacity	100-1500 A
Characteristic	Time-Lag T
Mounting	PCB,SMT
Admissible Ambient Air Temp.	-55 °C to 125 °C
Climatic Category	55/125/21 acc. to IEC 60068-1
Material: Housing	Ceramics
Material: Terminals	Ni/Sn-Plated Copper Alloy
Unit Weight	1.42 g
Storage Conditions	0 °C to 40 °C, max. 70% r.h.
Product Marking	Rated current, Voltage, Characteristic, Breaking Capacity, Approvals

Soldering Methods	Reflow Soldering Profile
Solderability	245 °C / 3 sec acc. to IEC 60068-2-58
Resistance to Soldering Heat	260 °C / 10 sec acc. to IEC 60068-2-58
Moisture Sensitivity Level	MSL 1, J-STD-020
Moisture Resistance Test	MIL-STD-202, Method 106 (acc. to EIA/IS-722, Test 4.4.3)
Operational Life	1000h @ 0.60 x In @ 70°C (acc. to EIA/IS-722, Test 4.4.1)
Mechanical Shock	MIL-STD-202, Method 213 Condition A
Resistance to Solvents	MIL-STD-202, Method 215 (EIA-722, 4.11)
Terminal Strength	(Deflection of board 1 mm for 1 minute) (acc. to EIA/IS-722, Test 4.5.5)

Approvals and Compliances

Detailed information on product approvals, code requirements, usage instructions and detailed test conditions can be looked up in Details about Approvals

Approvals

The approval mark is used by the testing authorities to certify compliance with the safety requirements placed on electronic products.

Approval Reference Type: UMT-H

Approval Logo	Certificates	Certification Body	Description
	VDE Approvals	VDE	VDE Certificate Number: 40039476
	UL Approvals	UL	UL File Number: E41599
	CQC Approvals	CQC	CQC Certificate Number: CQC20012265448

Product standards

Product standards that are referenced

Organization	Design	Standard	Description
IEC	Designed according to	IEC 60127-7	Miniature fuses - Part 7: Miniature fuse-links for special applications
UL	Designed according to	UL 248-14	Low voltage fuses - Part 14: Additional fuses

Application standards

Application standards where the product can be used

Organization	Design	Standard	Description
IEC	Designed for applications acc.	IEC/UL 62368-1	IEC 62368-1 includes the basic requirements for safety of audio, video, information technology and office equipment.

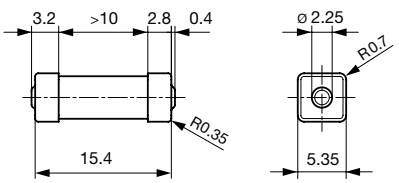
Compliances

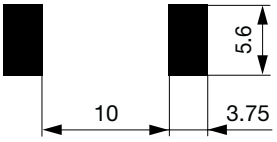
The product complies with following Guide Lines

Identification	Details
CE	CE declaration of conformity
RoHS	RoHS
50	China RoHS
Halogen Free HF	Halogen Free
REACH	REACH
AEC Q200	Automotive

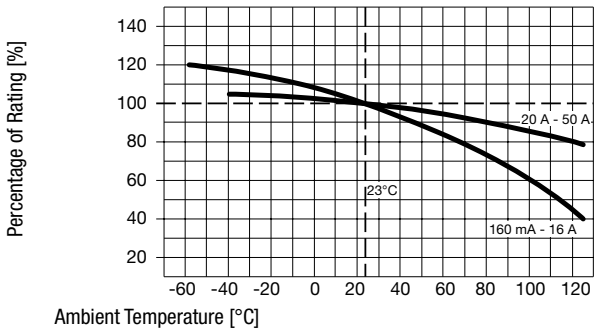
Dimension [mm]

Soldering pads





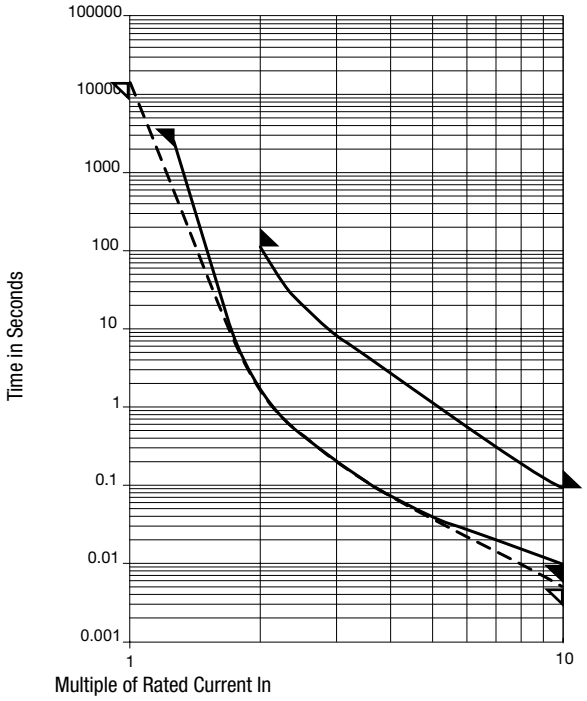
Derating Curves



Pre-Arcing Time

Rated Current In	1.0 x In min.	1.25 x In min.	2.0 x In max.	2.5 x In max.	10.0 x In min.	10.0 x In max.
0.160 A - 12.5 A	-	60 min	120 s	-	10 ms	100 ms
16 A	4 h	-	120 s	-	10 ms	100 ms
20 A - 50 A	4 h	-	-	120 s	5 ms	100 ms

Time-Current-Curves



All Variants

Rated Current [A]	Rated Voltage [VAC]	Rated Voltage [VDC]	Breaking Capacity	Voltage Drop 1.0 I_n typ. [mV]	Power Dissipation 1.25 I_n typ. [mW]	Melting I^2t 10.0 I_n typ. [A^2s]			Order Number
0.16	277	250	1)	1680	410	0.055	●	●	3403.0266.11
0.16	277	250	1)	1680	410	0.055	●	●	3403.0266.23
0.2	277	250	1)	1330	425	0.09	●	●	3403.0267.11
0.2	277	250	1)	1330	425	0.09	●	●	3403.0267.23
0.25	277	250	1)	1120	450	0.15	●	●	3403.0268.11
0.25	277	250	1)	1120	450	0.15	●	●	3403.0268.23

Rated Current [A]	Rated Voltage [VAC]	Rated Voltage [VDC]	Breaking Capacity	Voltage Drop 1.0 I_n typ. [mV]	Power Dissipation 1.25 I_n typ. [mW]	Melting I^2t 10.0 I_n typ. [A^2s]	VDE	cULus	CQC	Order Number
0.315	277	250	1)	880	460	0.24	●	●		3403.0269.11
0.315	277	250	1)	880	460	0.24	●	●		3403.0269.23
0.4	277	250	1)	810	520	0.44	●	●		3403.0270.11
0.4	277	250	1)	810	520	0.44	●	●		3403.0270.23
0.5	277	250	1)	710	550	0.62	●	●		3403.0271.11
0.5	277	250	1)	710	550	0.62	●	●		3403.0271.23
0.63	277	250	1)	530	570	1.28	●	●		3403.0272.11
0.63	277	250	1)	530	570	1.28	●	●		3403.0272.23
0.8	277	250	1)	450	610	2.2	●	●		3403.0273.11
0.8	277	250	1)	450	610	2.2	●	●		3403.0273.23
1	277	250	1)	420	710	3.6	●	●		3403.0274.11
1	277	250	1)	420	710	3.6	●	●		3403.0274.23
1.25	277	250	1)	330	735	4.05	●	●		3403.0275.11
1.25	277	250	1)	330	735	4.05	●	●		3403.0275.23
1.6	277	250	1)	270	810	4.66	●	●		3403.0276.11
1.6	277	250	1)	270	810	4.66	●	●		3403.0276.23
2	277	250	1)	230	850	9.6	●	●		3403.0277.11
2	277	250	1)	230	850	9.6	●	●		3403.0277.23
2.5	277	125	2)	205	940	24	●	●	●	3403.0278.11
2.5	277	125	2)	205	940	24	●	●	●	3403.0278.23
3.15	277	125	2)	175	990	39	●	●	●	3403.0279.11
3.15	277	125	2)	175	990	39	●	●	●	3403.0279.23
4	277	125	2)	140	1015	52	●	●	●	3403.0280.11
4	277	125	2)	140	1015	52	●	●	●	3403.0280.23
5	277	125	2)	115	1055	100	●	●		3403.0281.11
5	277	125	2)	115	1055	100	●	●		3403.0281.23
6.3	277	125	2)	105	1280	190	●	●		3403.0282.11
6.3	277	125	2)	105	1280	190	●	●		3403.0282.23
8	250	125	3)	79	1250	95	●	●		3403.0283.11
8	250	125	3)	79	1250	95	●	●		3403.0283.23
10	250	125	3)	73	1220	180	●	●		3403.0284.11
10	250	125	3)	73	1220	180	●	●		3403.0284.23
12.5	250	125	4)	63	1490	340	●	●		3403.0285.11
12.5	250	125	4)	63	1490	340	●	●		3403.0285.23
16	250	125	5)	65	-	650	●	●		3403.0286.11
16	250	125	5)	65	-	650	●	●		3403.0286.23
20	125	72	6)	76	-	445		●		3403.0287.11
20	125	72	6)	76	-	445		●		3403.0287.23
25	125	72	6)	64	-	1170		●		3403.0288.11
25	125	72	6)	64	-	1170		●		3403.0288.23
30	125	72	6)	64	-	1650		●		3403.0289.11
30	125	72	6)	64	-	1650		●		3403.0289.23
40	125	72	7)	61	-	3620		●		3403.0290.11
40	125	72	7)	61	-	3620		●		3403.0290.23
50	125	72	7)	61	-	6980		●		3403.0291.11
50	125	72	7)	61	-	6980		●		3403.0291.23

Most Popular.

Availability for all products can be searched real-time:

1) UL = 1500 A @ 277 VAC, resistive / 1500 A @ 250 VDC

1) IEC = 1500 A @ 250 VAC, resistive / 1500 A @ 250 VDC

2) UL = 1500 A @ 277 VAC, resistive / 1500 A @ 125 VDC

2) IEC = 1500 A @ 250 VAC, resistive / 1500 A @ 125 VDC

Rated Current [A]	Rated Voltage [VAC]	Rated Voltage [VDC]	Breaking Capacity	Voltage Drop 1.0 I_n typ. [mV]	Power Dissipation 1.25 I_n typ. [mW]	Melting I^2t 10.0 I_n typ. [A^2s]	Order Number

3) UL = 1500 A @ 250 VAC, resistive / 1500 A @ 125 VDC

3) IEC = 1500 A @ 250 VAC, resistive / 1500 A @ 125 VDC

4) UL = 1000 A @ 250 VAC, resistive / 1000 A @ 125 VDC

4) IEC = 1000 A @ 250 VAC, resistive / 1000 A @ 125 VDC

5) UL = 500 A @ 250 VAC, resistive / 500 A @ 125 VDC

5) IEC = 500 A @ 250 VAC, resistive / 500 A @ 125 VDC

6) UL = 100 A @ 250 VAC, resistive / 500 A @ 125 VAC, resistive / 500 A @ 72 VDC

7) UL = 500 A @ 125 VAC, resistive / 500 A @ 72 VDC

All measurements are carried out on a test board according to IEC 60127 with the following tracks:

125 mA to 5 A: Track width 5.0 mm, Cu layer 35 µm

6.3 A to 8 A: Track width 7.5 mm, Cu layer 70 µm

10 A, 12.5 A: Track width 7.5 mm, Cu layer 140 µm

16 A, 20 A: Track width 10 mm, Cu layer 140 µm

25 A: Track width 15 mm, Cu layer 140 µm

30 A to 50 A: Track width 20 mm, Cu layer 210 µm

Packaging Unit acc. IEC 60286-3 Type 2a	.xx = .11	100 St. in 24mm Blister Tape plastic bag
	.xx = .23	1500 pcs. in 24mm tape on 33cm reel

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