Surface Mount Fuse, 7 x 2 mm, Quick-Acting F, 125 VAC, 125 VDC



## UL 248-14 · 125 VAC · 125 VDC · Quick-Acting F

See below:

**Approvals and Compliances** 

#### **Description**

- High breaking capacity
- Directly solderable on printed circuit boards

#### **Applications**

- Telecom
- Household appliances

#### References

Square Footprint Type MKF Corresponding Fuseholder

#### Weblinks

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

Technical Data	
Rated Voltage	63 - 125 VAC, 65 - 125 VDC
Rated current	0.063 - 15A
Breaking Capacity	300 A
Characteristic	Quick-Acting F
Mounting	PCB,SMT
Admissible Ambient Air Temp.	-55 °C to 125 °C
Climatic Category	55/125/56 acc. to IEC 60068-1
Material: Tube	Ceramics
Material: Endcaps	Copper alloy, tin-plated
Unit Weight	0.07 g
Storage Conditions	0°C to 60°C, max. 70% r.h.
Product Marking	国, Rated current

Soldering Methods	Reflow, Wave
	Soldering Profile
Solderability	235°C / 2 sec acc. to IEC 60068-2-58,
	Test Td,Fig. 2B (Reflow) // 245 °C / 3
	sec (Wave)
Resistance to Soldering Heat	260°C / 10 sec acc. to IEC 60068-2-58,
	Test Td
Moisture Sensitivity Level	MSL 1, J-STD-020

### **Approvals and Compliances**

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

SCHURTER products are designed for use in industrial environments. They have approvals from independent testing bodies according to national and international standards. Products with specific characteristics and requirements such as required in the automotive sector according to IATF 16949, medical technology according to ISO 13485 or in the aerospace industry can be offered exclusively with customer-specific, individual agreements by SCHURTER.

## **Approvals**

The approval mark is used by the testing authorities to certify compliance with the safety requirements placed on electronic products. Approval Reference Type: 172876

Approval Logo	Certificates	Certification Body	Description
c <b>91</b> 0° <sub>IIS</sub>	UL Approvals	UL	UR File Number: E42088

### **Product standards**

Product standards that are referenced

Organization	Design	Standard	Description
(ÚL)	Designed according to	UL 248-14	Low voltage fuses - Part 14: Additional fuses
CSA Group	Designed according to	CSA22.2 No. 248.14	Low-Voltage Fuses - Part 14: Supplemental Fuses

## **Application standards**

Application standards where the product can be used

Organization	Design	Standard	Description
<u>IEC</u>	Designed for applications acc.	IEC/UL 62368-1	Audio/video, information and communication technology equipment - Part 1: Safety requirements

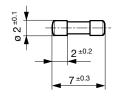
### Compliances

The product complies with following Guide Lines

Identification	Details	Initiator	Description
C€	CE declaration of conformity	SCHURTER AG	The CE marking declares that the product complies with the applicable requirements laid down in the harmonisation of Community legislation on its affixing in accordance with EU Regulation 765/2008.
UK CA	UKCA declaration of conformity	SCHURTER AG	The UKCA marking declares that the product complies with the applicable requirements laid down in the British Amendment of Regulation (EC) 765/2008.
ROHS	RoHS	SCHURTER AG	Directive RoHS 2011/65/EU, Amendment (EU) 2015/863
50	China RoHS	SCHURTER AG	The law SJ / T 11363-2006 (China RoHS) has been in force since 1 March 2007. It is similar to the EU directive RoHS.
REACH	REACH	SCHURTER AG	On 1 June 2007, Regulation (EC) No 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals 1 (abbreviated as "REACH") entered into force.

## Dimension [mm]





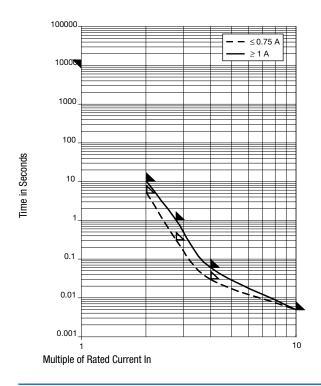


# Soldering pads

## **Pre-Arcing Time**

Rated Current In	1.0 x ln min.	2.0 x In max.	2.75 x In max.	4.0 x In max.	10.0 x In max.
0.063 A - 0.75 A	4 h	5 s	300 ms	30 ms	5 ms
1 A - 15 A	4 h	10 s	-	60 ms	5 ms

### **Time-Current-Curves**



### **All Variants**

Rated Current [A]
0.063   125   125   1)   590   37   0.00022   ◆ 7010.9750.57     0.125   125   125   1)   640   80   0.0024   ◆ 7010.9760.63     0.25   125   125   1)   275   69   0.0061   ◆ 7010.9770.57     0.375   125   125   1)   215   81   0.012   ◆ 7010.9780.63     0.375   125   125   1)   215   81   0.012   ◆ 7010.9780.63     0.5   125   125   1)   205   103   0.046   ◆ 7010.9780.63     0.5   125   125   1)   205   103   0.046   ◆ 7010.9790.63     0.5   125   125   1)   205   103   0.046   ◆ 7010.9790.63     0.5   125   125   1)   190   143   0.09   ◆ 7010.980.63     0.5   125   125   1)   190   143   0.09   ◆ 7010.980.63     0.75   125   125   1)   180   180   0.11   ◆ 7010.980.63 <t< th=""></t<>
0.125     125     125     1)     640     80     0.0024     ▼ 7010.9760.63       0.25     125     125     1)     275     69     0.0061     ▼ 7010.9770.63       0.25     125     125     1)     275     69     0.0061     ▼ 7010.9780.63       0.375     125     125     1)     215     81     0.012     ▼ 7010.9780.63       0.5     125     125     1)     205     103     0.046     ▼ 7010.9780.57       0.5     125     125     1)     205     103     0.046     ▼ 7010.9790.63       0.5     125     125     1)     205     103     0.046     ▼ 7010.9790.63       0.5     125     125     1)     190     143     0.09     ▼ 7010.980.63       0.75     125     125     1)     190     143     0.09     ▼ 7010.980.63       0.75     125     125     1)     180     180     0.11     ▼ 7010.980.63       1     125
0.25     125     125     1)     275     69     0.0061     ▼ 7010.9770.63       0.25     125     125     1)     275     69     0.0061     ▼ 7010.9770.57       0.375     125     125     1)     215     81     0.012     ▼ 7010.9780.63       0.375     125     125     1)     215     81     0.012     ▼ 7010.9780.63       0.5     125     125     1)     205     103     0.046     ▼ 7010.9780.63       0.5     125     125     1)     205     103     0.046     ▼ 7010.9790.63       0.5     125     125     1)     205     103     0.046     ▼ 7010.9790.63       0.5     125     125     1)     190     143     0.09     ▼ 7010.980.63       0.75     125     125     1)     190     143     0.09     ▼ 7010.980.63       1     125     125     1)     180     180     0.11     ▼ 7010.980.63       1     125
0.25     125     125     1)     275     69     0.0061     ▼7010,9770,57       0.375     125     125     1)     215     81     0.012     ▼7010,9780,63       0.375     125     125     1)     215     81     0.012     ▼7010,9780,57       0.5     125     125     1)     205     103     0.046     ▼7010,9790,63       0.5     125     125     1)     205     103     0.046     ▼7010,9790,57       0.75     125     125     1)     190     143     0.09     ▼7010,9800,63       0.75     125     125     1)     190     143     0.09     ▼7010,9800,57       1     125     125     1)     180     180     0.11     ▼7010,9800,57       1     125     125     1)     180     180     0.11     ▼7010,9800,57       1.5     125     125     1)     185     278     0.25     ▼7010,9820,57       1.5     125     1) </td
0.375     125     125     1)     215     81     0.012     ▼ 7010.9780.63       0.375     125     125     1)     215     81     0.012     ▼ 7010.9780.57       0.5     125     125     1)     205     103     0.046     ▼ 7010.9790.63       0.5     125     125     1)     205     103     0.046     ▼ 7010.9790.57       0.75     125     125     1)     190     143     0.09     ▼ 7010.9800.63       0.75     125     125     1)     190     143     0.09     ▼ 7010.9800.63       1     125     125     1)     180     180     0.11     ▼ 7010.9800.57       1     125     125     1)     180     180     0.11     ▼ 7010.9800.57       1.5     125     125     1)     180     180     0.11     ▼ 7010.9810.57       1.5     125     125     1)     185     278     0.25     ▼ 7010.9820.57       1.5     125
0.375     125     125     1)     215     81     0.012     ▼ 7010.9780.57       0.5     125     125     1)     205     103     0.046     ▼ 7010.9790.63       0.5     125     125     1)     205     103     0.046     ▼ 7010.9790.57       0.75     125     125     1)     190     143     0.09     ▼ 7010.9800.63       0.75     125     125     1)     190     143     0.09     ▼ 7010.9800.57       1     125     125     1)     180     180     0.11     ▼ 7010.9810.63       1     125     125     1)     180     180     0.11     ▼ 7010.9810.63       1     125     125     1)     180     180     0.11     ▼ 7010.9810.63       1.5     125     125     1)     185     278     0.25     ▼ 7010.9820.63       1.5     125     125     1)     160     320     0.72     ▼ 7010.9820.63       2     125     12
0.5   125   125   1)   205   103   0.046   ◆ 7010.9790.63     0.5   125   125   1)   205   103   0.046   ◆ 7010.9790.57     0.75   125   125   1)   190   143   0.09   ◆ 7010.9800.63     0.75   125   125   1)   190   143   0.09   ◆ 7010.9800.63     1   125   125   1)   180   180   0.11   ◆ 7010.9810.63     1   125   125   1)   180   180   0.11   ◆ 7010.9810.63     1   125   125   1)   180   180   0.11   ◆ 7010.9810.63     1.5   125   125   1)   185   278   0.25   ◆ 7010.9820.63     1.5   125   125   1)   185   278   0.25   ◆ 7010.9820.63     1.5   125   125   1)   160   320   0.72   ◆ 7010.9830.63     2   125   125   1)   160   320   0.72   ◆ 7010.9840.63     2.5   <
0.5     125     125     1)     205     103     0.046     ● 7010.9790.57       0.75     125     125     1)     190     143     0.09     ● 7010.9800.63       0.75     125     125     1)     190     143     0.09     ● 7010.9800.57       1     125     125     1)     180     180     0.11     ● 7010.9810.63       1     125     125     1)     180     180     0.11     ● 7010.9810.63       1.5     125     125     1)     185     278     0.25     ● 7010.9820.63       1.5     125     125     1)     185     278     0.25     ● 7010.9820.63       1.5     125     125     1)     160     320     0.72     ● 7010.9820.57       2     125     125     1)     160     320     0.72     ● 7010.9830.63       2     125     125     1)     160     320     0.72     ● 7010.9830.63       2.5     125     125 </td
0.75     125     125     1)     190     143     0.09     ▼ 7010.9800.63       0.75     125     125     1)     190     143     0.09     ▼ 7010.9800.57       1     125     125     1)     180     180     0.11     ▼ 7010.9810.63       1     125     125     1)     180     180     0.11     ▼ 7010.9810.63       1.5     125     125     1)     185     278     0.25     ▼ 7010.9820.63       1.5     125     125     1)     185     278     0.25     ▼ 7010.9820.63       1.5     125     125     1)     160     320     0.72     ▼ 7010.9820.63       2     125     125     1)     160     320     0.72     ▼ 7010.9830.63       2.5     125     125     1)     160     320     0.72     ▼ 7010.9840.63       2.5     125     125     1)     160     400     0.91     ▼ 7010.9840.63       2.5     125     1) </td
0.75   125   125   1)   190   143   0.09   ▼ 7010.9800.57     1   125   125   1)   180   180   0.11   ▼ 7010.9810.63     1   125   125   1)   180   180   0.11   ▼ 7010.9810.63     1.5   125   125   1)   185   278   0.25   ▼ 7010.9820.63     1.5   125   125   1)   185   278   0.25   ▼ 7010.9820.63     1.5   125   125   1)   185   278   0.25   ▼ 7010.9820.63     2   125   125   1)   160   320   0.72   ▼ 7010.9830.63     2   125   125   1)   160   320   0.72   ▼ 7010.9830.63     2.5   125   125   1)   160   400   0.91   ▼ 7010.9840.63     2.5   125   125   1)   160   400   0.91   ▼ 7010.9840.63     3   125   125   1)   155   465   1.3   ▼ 7010.9850.63     3   125 </td
1   125   125   1)   180   180   0.11   ◆ 7010.9810.63     1   125   125   1)   180   180   0.11   ◆ 7010.9810.67     1.5   125   125   1)   185   278   0.25   ◆ 7010.9820.63     1.5   125   125   1)   185   278   0.25   ◆ 7010.9820.63     1.5   125   125   1)   160   320   0.72   ◆ 7010.9830.63     2   125   125   1)   160   320   0.72   ◆ 7010.9830.57     2.5   125   125   1)   160   400   0.91   ◆ 7010.9840.63     2.5   125   125   1)   160   400   0.91   ◆ 7010.9840.57     3   125   125   1)   155   465   1.3   ◆ 7010.9850.63     3   125   125   1)   155   465   1.3   ◆ 7010.9850.57     3.5   125   125   1)   145   510   1.7   ◆ 7010.9860.63     3.5   125
1   125   125   1)   180   180   0.11   ◆ 7010.9810.57     1.5   125   125   1)   185   278   0.25   ◆ 7010.9820.63     1.5   125   125   1)   185   278   0.25   ◆ 7010.9820.57     2   125   125   1)   160   320   0.72   ◆ 7010.9830.63     2   125   125   1)   160   320   0.72   ◆ 7010.9830.57     2.5   125   125   1)   160   400   0.91   ◆ 7010.9840.63     2.5   125   125   1)   160   400   0.91   ◆ 7010.9840.63     2.5   125   125   1)   155   465   1.3   ◆ 7010.9850.63     3   125   125   1)   155   465   1.3   ◆ 7010.9850.63     3.5   125   125   1)   145   510   1.7   ◆ 7010.9860.63     3.5   125   125   1)   145   510   1.7   ◆ 7010.9860.63     4   125
1.5   125   125   1)   185   278   0.25   ◆ 7010.9820.63     1.5   125   125   1)   185   278   0.25   ◆ 7010.9820.67     2   125   125   1)   160   320   0.72   ◆ 7010.9830.63     2   125   125   1)   160   320   0.72   ◆ 7010.9830.57     2.5   125   125   1)   160   400   0.91   ◆ 7010.9840.63     2.5   125   125   1)   160   400   0.91   ◆ 7010.9840.63     2.5   125   125   1)   155   465   1.3   ◆ 7010.9850.63     3   125   125   1)   155   465   1.3   ◆ 7010.9850.63     3.5   125   125   1)   145   510   1.7   ◆ 7010.9860.63     3.5   125   125   1)   145   510   1.7   ◆ 7010.9860.63     3.5   125   125   1)   140   560   2.6   ◆ 7010.9870.63     4   125
1.5   125   125   1)   185   278   0.25   ◆ 7010.9820.57     2   125   125   1)   160   320   0.72   ◆ 7010.9830.63     2   125   125   1)   160   320   0.72   ◆ 7010.9830.57     2.5   125   125   1)   160   400   0.91   ◆ 7010.9840.63     2.5   125   125   1)   160   400   0.91   ◆ 7010.9840.57     3   125   125   1)   155   465   1.3   ◆ 7010.9850.63     3   125   125   1)   155   465   1.3   ◆ 7010.9850.63     3.5   125   125   1)   145   510   1.7   ◆ 7010.9860.63     3.5   125   125   1)   145   510   1.7   ◆ 7010.9860.63     3.5   125   125   1)   140   560   2.6   ◆ 7010.9870.63     4   125   125   1)   140   560   2.6   ◆ 7010.9870.57     5   63
2   125   125   1)   160   320   0.72   ◆ 7010.9830.63     2   125   125   1)   160   320   0.72   ◆ 7010.9830.67     2.5   125   125   1)   160   400   0.91   ◆ 7010.9840.63     2.5   125   125   1)   160   400   0.91   ◆ 7010.9840.57     3   125   125   1)   155   465   1.3   ◆ 7010.9850.63     3   125   125   1)   155   465   1.3   ◆ 7010.9850.63     3.5   125   125   1)   145   510   1.7   ◆ 7010.9860.63     3.5   125   125   1)   145   510   1.7   ◆ 7010.9860.57     4   125   125   1)   140   560   2.6   ◆ 7010.9870.63     4   125   125   1)   140   560   2.6   ◆ 7010.9870.57     5   63   125   2)   125   625   4   ◆ 7010.9880.63     5   63   1
2   125   125   1)   160   320   0.72   ● 7010.9830.57     2.5   125   125   1)   160   400   0.91   ● 7010.9840.63     2.5   125   125   1)   160   400   0.91   ● 7010.9840.57     3   125   125   1)   155   465   1.3   ● 7010.9850.63     3   125   125   1)   155   465   1.3   ● 7010.9850.57     3.5   125   125   1)   145   510   1.7   ● 7010.9860.63     3.5   125   125   1)   145   510   1.7   ● 7010.9860.63     4   125   125   1)   140   560   2.6   ● 7010.9870.63     4   125   125   1)   140   560   2.6   ● 7010.9870.57     5   63   125   2)   125   625   4   ● 7010.9880.63     5   63   125   2)   125   625   4   ● 7010.9880.63
2.5   125   125   1)   160   400   0.91   ◆ 7010.9840.63     2.5   125   125   1)   160   400   0.91   ◆ 7010.9840.67     3   125   125   1)   155   465   1.3   ◆ 7010.9850.63     3   125   125   1)   155   465   1.3   ◆ 7010.9850.57     3.5   125   125   1)   145   510   1.7   ◆ 7010.9860.63     3.5   125   125   1)   145   510   1.7   ◆ 7010.9860.63     4   125   125   1)   140   560   2.6   ◆ 7010.9870.63     4   125   125   1)   140   560   2.6   ◆ 7010.9870.57     5   63   125   2)   125   625   4   ◆ 7010.9880.63     5   63   125   2)   125   625   4   ◆ 7010.9880.57
2.5   125   125   1)   160   400   0.91   ● 7010.9840.57     3   125   125   1)   155   465   1.3   ● 7010.9850.63     3   125   125   1)   155   465   1.3   ● 7010.9850.57     3.5   125   125   1)   145   510   1.7   ● 7010.9860.63     3.5   125   125   1)   145   510   1.7   ● 7010.9860.57     4   125   125   1)   140   560   2.6   ● 7010.9870.63     4   125   125   1)   140   560   2.6   ● 7010.9870.57     5   63   125   2)   125   625   4   ● 7010.9880.63     5   63   125   2)   125   625   4   ● 7010.9880.57
3   125   125   1)   155   465   1.3   ● 7010.9850.63     3   125   125   1)   155   465   1.3   ● 7010.9850.57     3.5   125   125   1)   145   510   1.7   ● 7010.9860.63     3.5   125   125   1)   145   510   1.7   ● 7010.9860.57     4   125   125   1)   140   560   2.6   ● 7010.9870.63     4   125   125   1)   140   560   2.6   ● 7010.9870.57     5   63   125   2)   125   625   4   ● 7010.9880.63     5   63   125   2)   125   625   4   ● 7010.9880.57
3 125 125 1) 155 465 1.3 ◆ 7010.9850.57   3.5 125 125 1) 145 510 1.7 ◆ 7010.9860.63   3.5 125 125 1) 145 510 1.7 ◆ 7010.9860.57   4 125 125 1) 140 560 2.6 ◆ 7010.9870.63   4 125 125 1) 140 560 2.6 ◆ 7010.9870.57   5 63 125 2) 125 625 4 ◆ 7010.9880.63   5 63 125 2) 125 625 4 ◆ 7010.9880.57
3.5 125 125 1) 145 510 1.7 ◆ 7010.9860.63   3.5 125 125 1) 145 510 1.7 ◆ 7010.9860.57   4 125 125 1) 140 560 2.6 ◆ 7010.9870.63   4 125 125 1) 140 560 2.6 ◆ 7010.9870.57   5 63 125 2) 125 625 4 ◆ 7010.9880.63   5 63 125 2) 125 625 4 ◆ 7010.9880.57
3.5 125 125 1) 145 510 1.7 ◆ 7010.9860.57   4 125 125 1) 140 560 2.6 ◆ 7010.9870.63   4 125 125 1) 140 560 2.6 ◆ 7010.9870.57   5 63 125 2) 125 625 4 ◆ 7010.9880.63   5 63 125 2) 125 625 4 ◆ 7010.9880.57
4 125 125 1) 140 560 2.6 ◆ 7010.9870.63   4 125 125 1) 140 560 2.6 ◆ 7010.9870.57   5 63 125 2) 125 625 4 ◆ 7010.9880.63   5 63 125 2) 125 625 4 ◆ 7010.9880.57
4 125 125 1) 140 560 2.6 ◆ 7010.9870.57   5 63 125 2) 125 625 4 ◆ 7010.9880.63   5 63 125 2) 125 625 4 ◆ 7010.9880.57
5 63 125 2) 125 625 4 • 7010.9880.63 5 63 125 2) 125 625 4 • 7010.9880.57
5 63 125 2) 125 625 4 <b>●</b> 7010.9880.57
,
7 63 125 2) 120 840 8.5 <b>●</b> 7010.9890.63

Rated Cur- rent [A]	Rated Vol- tage [VAC]	Rated Vol- tage [VDC]	Breaking Capacity	Voltage Drop 1.0 I <sub>n</sub> typ. [mV]	Power Dissipation 1.0 I <sub>n</sub> typ. [mW]	Melting I <sup>2</sup> t 10.0 I <sub>n</sub> typ. <sub>c</sub>	Order Number
7	63	125	2)	120	840	8.5 ●	7010.9890.57
10	65	65	3)	110	1100	31 ●	7010.9892.63
10	65	65	3)	110	1100	31 ●	7010.9892.57
12	65	65	3)	115	1380	48 ●	7010.9894.63
12	65	65	3)	115	1380	48 ●	7010.9894.57
15	65	65	3)	105	1575	92 •	7010.9896.63
15	65	65	3)	105	1575	92 ●	7010.9896.57

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1) 300 A @ 125 VAC ,  $\cos \phi \ge$  0.95 / 300 A @ 125 VDC resistiv

2) 300 A @ 63 VAC ,  $\cos\phi \ge$  0.95 / 300 A @ 125 VDC resistiv

3) 300 A @ 65 VAC , cos  $\phi \geq$  0.95 / 300 A @ 65 VDC resistiv

acc. IEC 60286-3 Type 2a .xx = .57 1500 pcs. in tape [W: 16mm and P1: 4mm] on reel [A: 18cm]	Packaging Unit	.xx = .63	100 St. in ESD-plastic bag
	acc. IEC 60286-3 Type 2a	.xx = .57	1500 pcs. in tape [W: 16mm and P1: 4mm] on reel [A: 18cm]