


### 1. 適用範圍 / SCOPE

1032SF 系列快速保險絲，適用於一般電子設備。  
1032SF series Fast Acting Fuse, used in electronic equipment.

### 2. 產品編碼 / Part Numbering

例「example」：

1032SF	20A	250V	
①	②	③	④

- ① 系列號/Series Number
- ② 額定電流/Rated Current
- ③ 額定電壓/Rated Voltage
- ④ 認證符號/Approved Symbol

### 3. 額定電流和額定電壓/ RATED CURRENT AND RATED VOLTAGE

額定電流 / Rated Current:

20A~60A

額定電壓 / Rated Voltage:

20A~30A: 250Vac 100V dc

40A~60A: 250Vac 72V dc

### 4. 標示 / MARKING

保險絲上需有下列標示/The fuses shall have the following marking

① 產品系列標識 / Series type Logo : S

② 額定電流 / Rated Current (A):\_\_A

注意 / Note :

對標示的大小和位置沒有規定 / Size and position of the markings shall not be provided.

### 5. 外觀及形狀 / APPEARANCES AND CONFIGURATION

5-1 外觀：無顯著的汙點、鐵銹或裂紋; 標示應容易辨識。

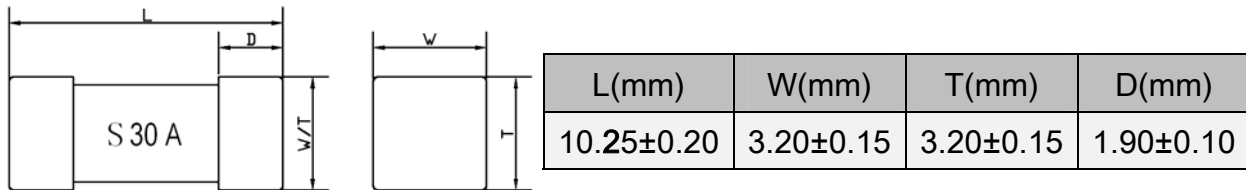
Appearances : There shall not be any remarkable stain, rust or crack on the appearances; marking shall be easily legible.

5-2 形狀：表面貼裝式保險絲

Configuration : Surface Mount Fuse.

### 6. 工程圖和結構 / OUTLINE DRAWING AND STRUCTURE

#### 6-1 工程圖 (單位: mm) / Outline Drawing and Dimensions (Unit: mm)



#### 6-2 結構 / Structure

元件 Component	材質 Material	數量 Quantity
銅帽 Cap	黃銅鍍金 Brass with gold plated	2
本體 Body	陶瓷管 Ceramic tube	1

### 7. 產品特性 / PRODUCT CHARACTERISTICS

編號 No.	項目 Item	內容 Content	參考標準 Reference standard
1	絕緣阻抗 Insulation resistance (after opening)	10,000 ohms minimum	MIL-STD-202G, Method 302 Test Condition A
2	可焊性 Solderability	T=215°C±5°C, t=3+0/-0.5s, Cover ≥ 95%	MIL-STD-202G, Method 208H
3	耐焊接熱 Soldering heat resistance	10 sec at 260 °C  ΔR :<10%	MIL-STD-202G, Method 210F Test Condition B
4	熱衝擊 Thermal Shock	5 cycles between -65°C/+125°C 15minutes ; each extreme  ΔR :<10%	MIL-STD-202G, Method 107 Test Condition B
5	機械衝擊 Mechanical Shock	100Gs Peak amplitude , sawtooth wave 6 ms duration , 3 cycles XYZ+xyz=18 shocks.  ΔR :<10%	MIL-STD-202G, Method 213 Test Condition 1
6	高/低溫儲存 High/Low Temperature Storage	T=125°C±2°C , 96hours , T=-55°C±3°C , 96hours  ΔR : <10%	IEC60068-2-1 / IEC60068-2-2
7	抗潮濕性 Moisture Resistance	85°C±3°C, 80%~90%RH 10 cycles  ΔR :<10%	MIL-STD-202, Method 106
8	振動 Vibration	10-55-10 Hz Sweep in 1 minure , 0.03 in.amplitude . 2hours in each of XYZ planes=6hours total.  ΔR : <10%	MIL-STD-202 Method 201 ( 10-55Hz )
9	鹽霧實驗 Salt spray	5% salt solution , 48hours  ΔR : <10%	MIL-STD-202G,Method 101E, Test Condition B

### 8. 電氣特性 / ELECTRICAL CHARACTERISTICS

#### 8-1 熔斷 / 電流特性：Pre-Arcing Time / Current Characteristic (limits)

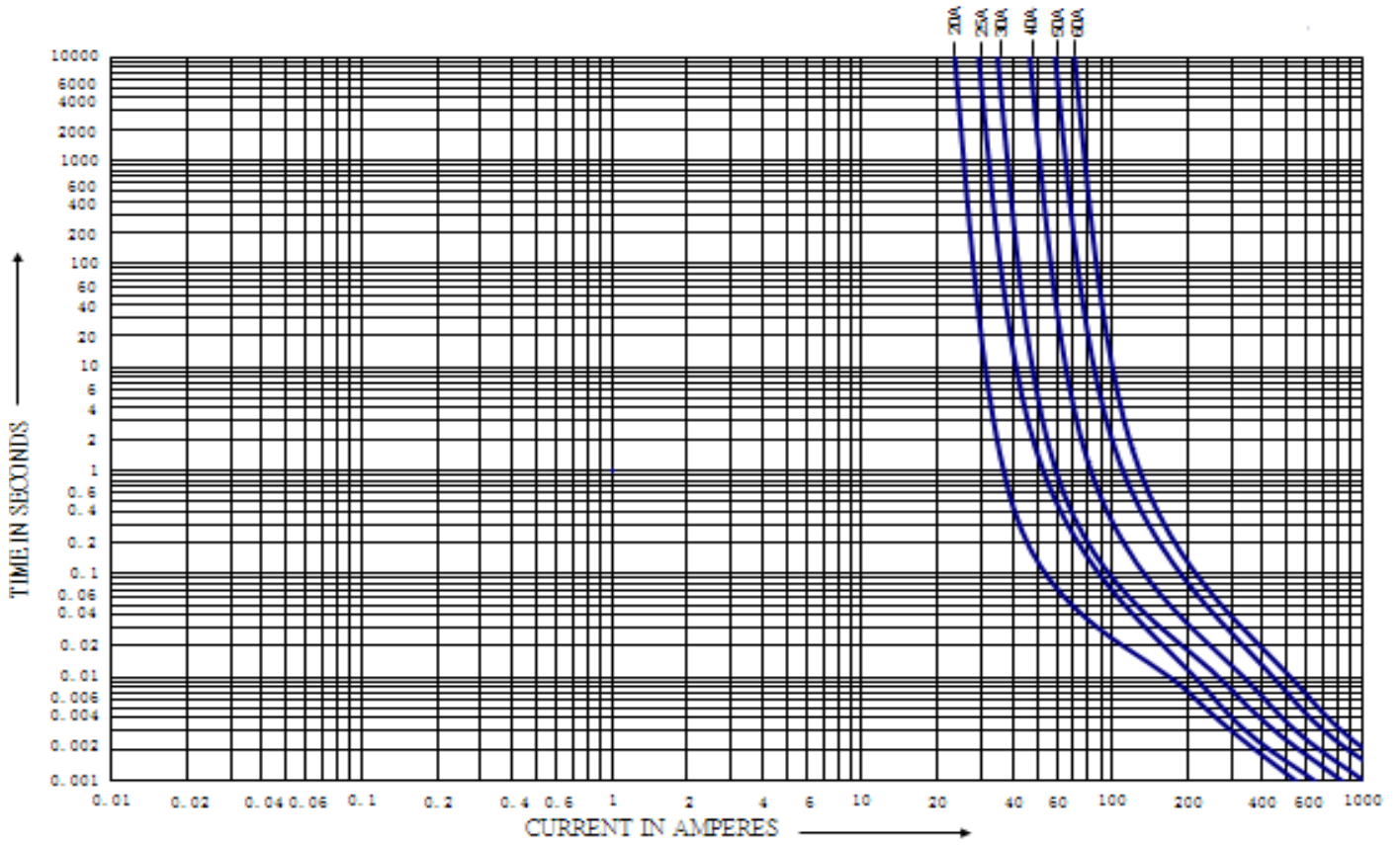
RATED CURRENT	1 In	2In	10In
20A~60A	4hrs Min.	60s Max.	>1ms

#### 8-2 產品規格/Specification

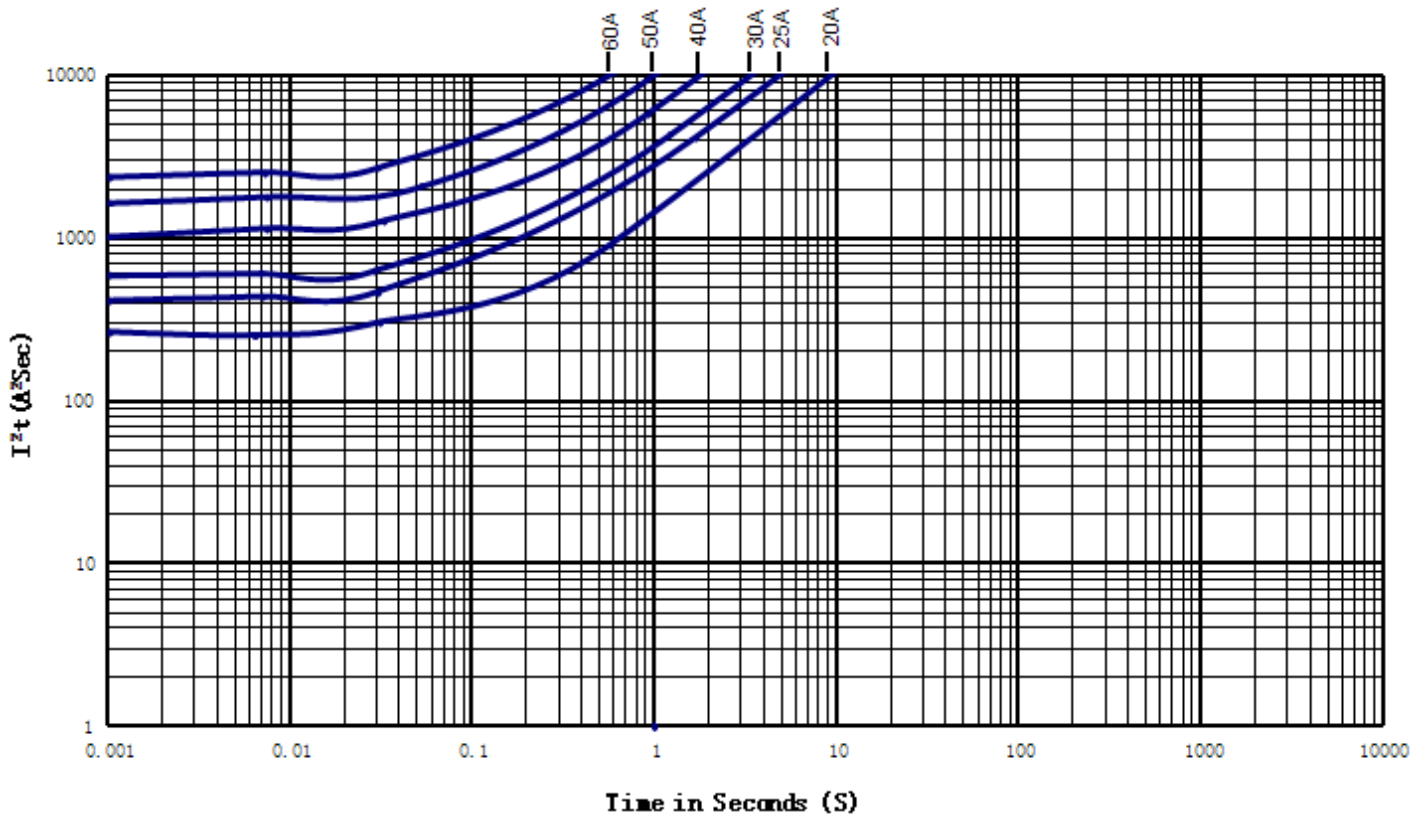
額定電流 Rated Current	額定電壓 Rated Voltage	分斷能力 Breaking Capacity	Typical Cold DCR (mΩ)	Normal I <sup>2</sup> T <sup>**</sup> (A <sup>2</sup> sec)
20A	250Vac / 100V dc	100A@ 250V AC 300A@ 65V AC 300A@ 100V DC 500A@ 72V DC 1000A@ 32V DC	3.08	264
25A	250Vac / 100V dc		2.15	413
30A	250Vac / 100V dc		2.08	594
40A	250Vac / 72V dc		1.23	1024
50A	250Vac / 72V dc		1.00	1650
60A	250Vac / 72V dc		0.88	2376

\*\* I<sup>2</sup>T Values stated for 10 msec opening time

8-3 I-t 圖/CHARACTERISTICS DIAGRAM(I-t)



8-4  $I^2t$  -t 圖/CHARACTERISTICS DIAGRAM( $I^2t$  -t)



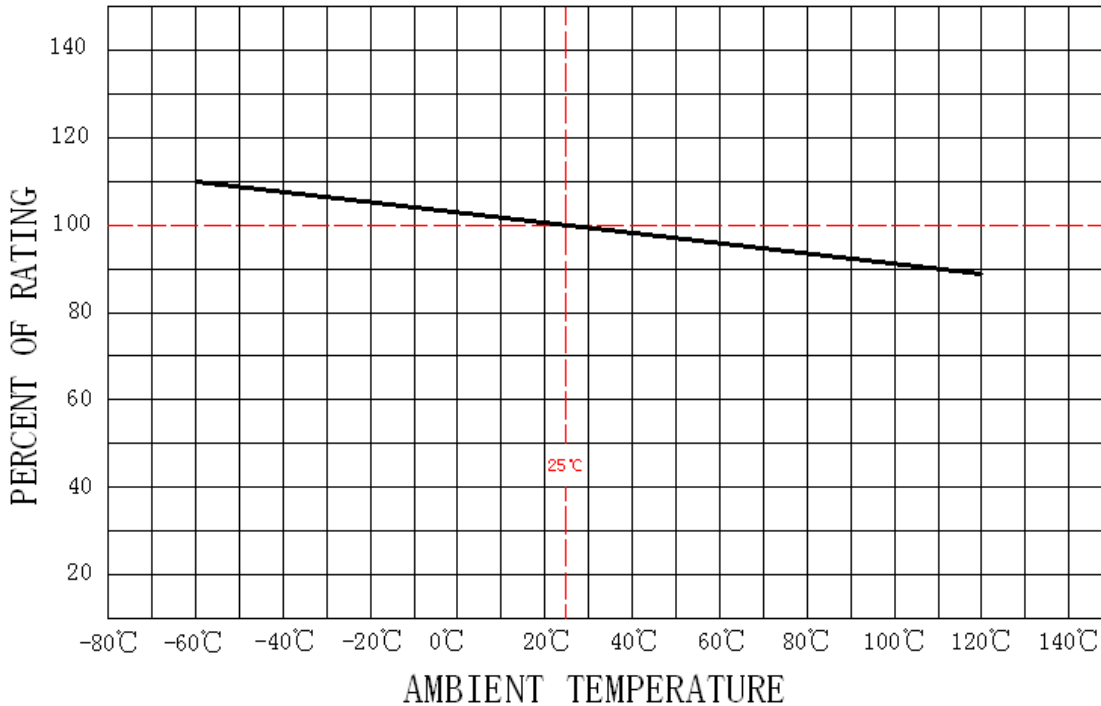
### 9. 環境特性 / ENVIRONMENTAL CHARACTERISTIC

9-1 操作溫度範圍:  $-55^{\circ}\text{C} \sim 125^{\circ}\text{C}$  / Operating Temperature:  $-55^{\circ}\text{C} \sim 125^{\circ}\text{C}$

若貴司操作環境溫度超出  $25 \pm 5^{\circ}\text{C}$  範圍，在選用保險絲規格時，需考慮操作環境溫度對保險絲的影響。  
請參照：溫度-電流曲線圖。

When choosing the fuse's specification, if the operating environmental temperature beyond the scope from  $20 \sim 30^{\circ}\text{C}$ , you should consider the environmental temperature's affection to fuses.  
please refer:

Temperature-Current curve:



9-2 存儲條件 / Storage Conditions

在溫度  $+5^{\circ}\text{C} \sim 30^{\circ}\text{C}$ 、相對濕度 25%~60% 的密閉條件下可存放 2 年。

Under airtight in temperature  $+5^{\circ}\text{C} \sim 30^{\circ}\text{C}$ 、relative humidity 25%~60% can store 2 years.

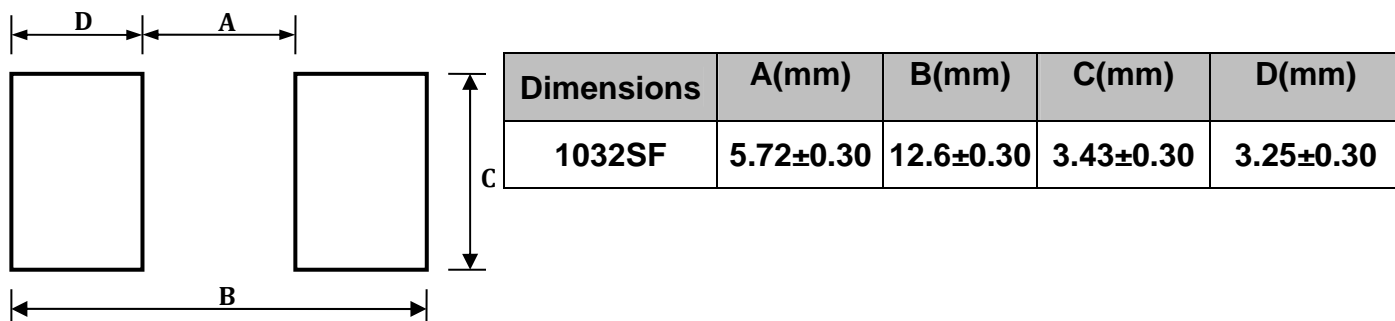
在溫度  $+10^{\circ}\text{C} \sim 60^{\circ}\text{C}$ 、相對濕度為 95% 的非露天下最多可存放 30 天。

Without dew in temperature  $+10^{\circ}\text{C} \sim 60^{\circ}\text{C}$ 、relative humidity be 95% maximum value for 30 days.

### 10. 安裝方式及條件 / INSTALLATION WAY AND PARAMETERS

10-1 建議如下圖安裝方式安裝，並滿足所要求的尺寸。

Propose that the following picture installation way is installed, and satisfied the required size.



10-2 建議客戶焊接參數 / Recommended Customer Soldering Parameters

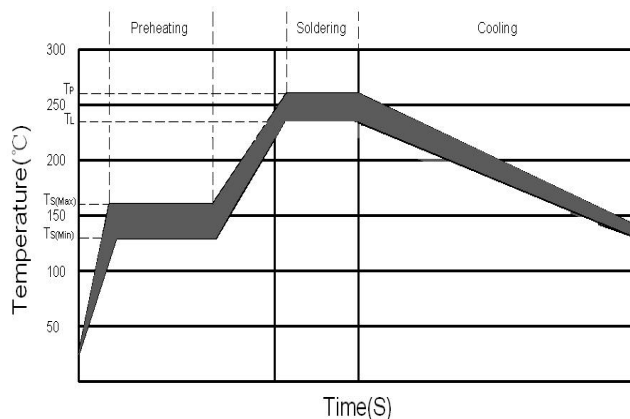
1. Infrared Reflow:

Temperature : 260°C

Time : 5sec Max.

Recommend Reflow profile

Reflow Condition		Pb-Free assembly
Preheating	-Temperature Min (Ts(min))	150 °C
	-Temperature Max (Ts(max))	200 °C
	-Time	60~120 Secs
Soldering	-Temperature (TL)(Liquidus)	235 °C
	-Time Max (TL)	20~40Secs
	-Peak Temperature (Tp)	Max 260 °C
	-Time Max (Tp)	5 Secs



2. Wave soldering

Reservoir Temperature : 260°C

Time in Reservoir : 10sec Max.

3. Hand Soldering :

Temperature : 350°C

Time : 3sec Max.

Soldering iron avoid touch Cap.

### 11. 其他使用注意事項 / OTHER NOTICE IN USED

符合本公司可能的其它檔的要求。

It could be in conformance with another file which made by our company.

### 12. 安全認證及編號 / STANDARDS AND APPROVALS

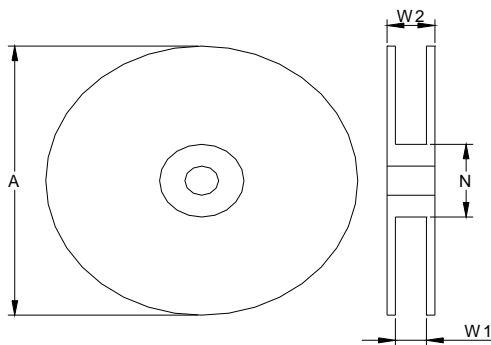
UL	E56092
----	--------

### 13. 包裝訊息 / PACKING INFORMATION

#### 13-1 包裝數量、重量 / QUANTITY & WEIGHT

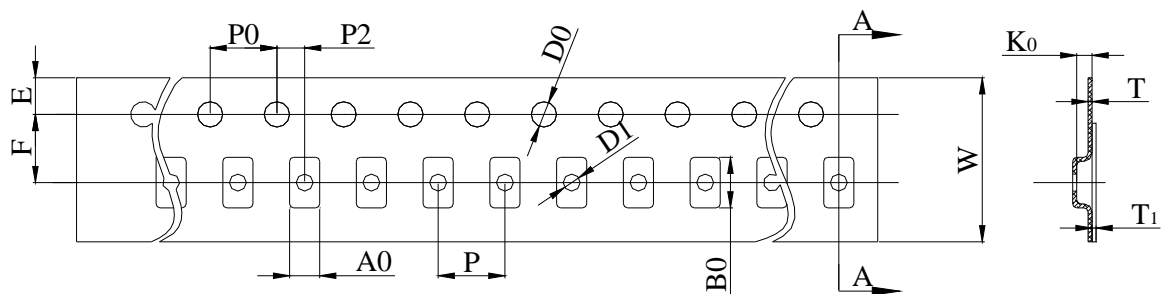
型號 Type Number	數量(pcs) Quantity(pcs)
<b>1032SF</b>	<b>2,000</b>

#### 13-2 捲輪規格/ Reel & Tape specifications



Unit(mm)

$A \pm 2$	$N \pm 1$	$W1 \pm 1.5$	$W2 \pm 1.5$
330.00	100.00	26.00	28.50

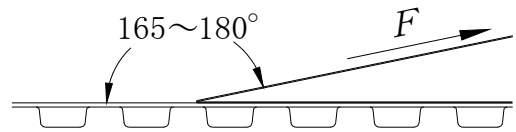


Unit(mm)

<b>W</b>	<b><math>24.00 \pm 0.30</math></b>	<b>D0</b>	<b><math>1.50 \pm 0.10</math></b>
<b>P0</b>	<b><math>4.00 \pm 0.10</math></b>	<b>F</b>	<b><math>11.50 \pm 0.10</math></b>
<b>P</b>	<b><math>8.00 \pm 0.10</math></b>	<b>E</b>	<b><math>1.75 \pm 0.10</math></b>
<b>P2</b>	<b><math>2.00 \pm 0.10</math></b>	<b>T</b>	<b><math>0.35 \pm 0.05</math></b>
<b>A0</b>	<b><math>1.50 \pm 0.10</math></b>	<b>T1</b>	<b>Max. 0.1</b>
<b>B0</b>	<b><math>10.30 \pm 0.10</math></b>	<b>K0</b>	<b><math>3.50 \pm 0.10</math></b>

### 13-3 密封膠膜剝離強度要求 / Peeling Strength of Seal Tape

F = 剝離強度 : 0.1 – 1.0N ( 10 - 100gf )



### 14.其他 / OTHERS

14-1 如果在使用中有超出本規格書的要求，必須經由雙方協商確認。

In the event that an impropriety is found beyond this specification ,it shall be fixed by mutual agreement between the parties.

14-2 如果本規格書有不適當的情況，必須通過雙方協商並由本公司修改。

In the event that an impropriety is found in this specification , WALTER ELECTRONIC CO., LTD. shall amend it by mutual agreement between the parties.

版次	製作	確認	審核
第5版	程正永 2019/11/11	饒 紅 2019/11/11	<i>Russel</i> 2019/11/15





# UL iQ for Fuses



## Fuses

E56092

### Guide Information

## SUZHOU WALTER ELECTRONIC CO LTD

NO.99 Xinli Road, Fenhu Technic Development Zone, Wujiang Jiangsu 215211 CN

### 1032SF, 1032SS

Supplemental fuses: surface mount, cartridge enclosed

<u>Size</u> mm(in)	<u>Amps</u> (A)	<u>Volts</u> (V)	<u>Interrupting</u> <u>Rating (A)</u>
10.3 x 3.2 x 3.2 (0.41 x 0.13 x 0.13)	20 - 60	250Vac	100
	20 - 60	65Vac	300
	40 - 60	72Vdc	180
	40 - 60	60Vdc	600
	20 - 30	100Vdc	300
	20 - 30	72Vdc	500
	20 - 30	32Vdc	1000

Report Date: 2014-10-20

Last Revised: 2016-03-08

© 2019 UL LLC

