产品承认书

SPECIFICATION FOR APPROVAL

客户：
CUSTOMER: .....

品名：5*20 玻璃快断无脚保险管（环保产品）
PRODUCT NAME: 5*20 GLASS QUICK BLOW FUSE(Green Product)

型号规格：5F 系列 20A/250V
MODEL: 5F SERIES 20A/250V

客户物料编码：
CUSTOMER PART NUMBER: .....

物料编码：
PART NUMBER: 025.220020003

产品标识：
PRODUCT MARK: F20L250V 5F

编 制 PREPARED BY	审 核 CHECKED BY	批 准 APPROVED BY
张可兰 22.9.13	R&D 2022.9.13 Felton Tu	R&D 2022.9.13 Tony Wang

承 认 SIGNATURE	审 核 CHECKED BY	批 准 APPROVED BY

供方签章：
SUPPLIER:
日期：
DATE:

客户签章：
CUSTOMER:
日期：
DATE:

备注：承认签章后请回复一份承认书（或复印件）给我司，其余由贵司存档。
Note: After confirming and stamping, please return it to our company and filing.

旭程电子（深圳）有限公司
XC Electronics (ShenZhen) Corp., Ltd.
广东省深圳市横岗镇荷坳金源工业区，邮编：518115
Jinyuan Industry Zone, Heao Henggang, Shenzhen, Guangdong, China, Post Code: 518115
Tel: +86-0755-83957099, 83957079; Fax: +86-0755-83957022
http://www.xcfuse.com
http://www.xcfuse.cn.alibaba.com
E-mail:hqxc@xcfuse.com

目　　录

变更记录表

Change Record

序号 NO.	日期 Date	修改内容 Change Description	版本 REV.
1	2022-9-13	新版发行/New version	1.0
2			
3			
4			
5			
6			
7			
8			
9			
10			

产品规格书
Fuses Specification

1. 适用范围（Available range）：

本保险丝适用于保护家用电器，电子仪器,电源供应器、显示器等。

For protecting instruments, power supply devices and telephone sets etc.

2. 型号定义解释（Model meaning）:

5F：快断系列产品 （5F：Quick Blow Fuses）

5T：慢断系列产品 （5T：Slow Blow Fuses）

3. 相关标准（Safety Standards）:GB9364 IEC60127

通过认证（Approved file No）：

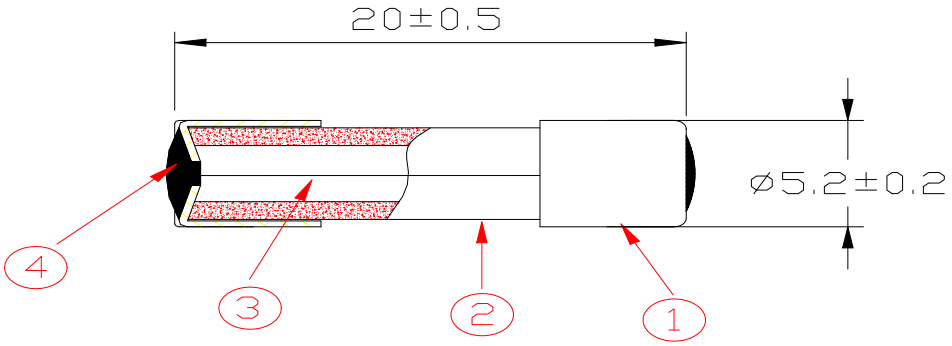
后续产品如增加安规认证： VDE CQC PSE KC 等将不作通知，产品上丝印认证标识符号会自动升级，不会影响产品性能。

If safety regulation certification is added to subsequent products: VDE CQC PSE KC will not be notified, and the silk screen certification logo on the product will be automatically upgraded without affecting the product performance.

4. 尺寸与结构(Size and Structure)：

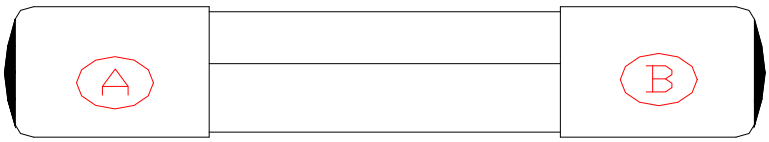
4.1 外形、结构及尺寸(The out view,construction and dimensions)：

参考下图 Refer to the following figure.



编号 No.	部件 Part Name	材料 Material	备注 Remarks
①	铜帽 Brass Cap	镀镍黄铜 Nickel plated copper	
②	玻璃管 Glass Tube	玻璃 Glass	
③	熔丝 Fuse Element	合金 Alloy	
④	焊锡 Solder	锡线（Sn99.3%Cu0.7%） Solder wire(Sn99.3%Cu0.7%)	RoHS

4.2 型号及标示（Model and indication）



型号 Model	A 表示 Indication A	B 表示 Indication B	备注 Remarks
	额定电压/电流 Rated Voltage/Current	商标.品名.认证 Trademark.Type.Approved mark	认证号 Approval No.
5F Series	F20L250V	5F	UR:E249609

4.3 玻璃管 （Glass Tube）

管体本体无破裂、缺损等现象，玻璃管产品须透明易辨其内部的可熔体。

The tube shall have no defects such as crack, injury and contamination. For glass tube, transparent glass in which the melting wire is clear and perceptible.

4.4 铜帽(Brass caps)

铜帽应焊接牢固，以保证在未损坏熔断体时，铜帽不能被卸脱。铜帽表面镀层应结实，端帽两端均可承受大小至少为 5N、保持 1min 的轴向拉力。

The cap should be firmly attached so that it is not possible to remove them without damaging the fuse itself. The plated material should be firm. Each of the cap should be bear an axial pull of 5N for 1min.

4.5 焊点(Soldering joint)

焊接铜帽端时,残留的助焊剂及焊锡等异物不应超出铜帽口和沾附在保险管外表面。

Soldering joint in end cap shall not melt during normal operation and shall not have solder clips on the tube, element in view and outer surface of caps.

5．机械特性（Mechanical characteristics）

保险丝应能承受下列试验：

Fuses should endure both of the following tests：

5.1 扭力试验：固定保险丝的一端铜帽，然后在另一端铜帽上顺时针和逆时针方向上顺序施加 100g.cm 力矩，两端铜帽不应松动，管体也不应破碎。

Wresting test： Fixed one cap of the fuse， applied 100g.cm of torsion power in clockwise and counter-clockwise on the other cap, as a result, the tube shall be no damage and the cap should be no loosening.

5.2 拉力试验：固定保险丝的一端铜帽，然后在另一端铜帽上，沿水平轴方向施加 5N 的拉力 1min，两端铜帽不应松动且管体不应破碎。

Pulling test: Fixed one cap of the fuse，applied level pull force of 5N to the other cap for 1 minute, there shall be no damage with the tube and no loosening with the caps and the pigtails.

5.3 管子强度试验：两端铜帽固定好后，在管体的中心位置施加 10N 的压力，管体不应破碎。

Stress test: Fixed two caps of the fuse，applied the stress of 10N to the tube center , there shall be no damage with the tube .

6. 电气特性（Electrical performance）

6.1 测试条件（Testing Ambient）

测试条件都应在下列大气条件下进行：

All tests should be carried out under the following conditions：

-温度（Surrounding temperature）：15℃～35℃；

-相对湿度（Relative humidity）：45%～75%；

-大气压力（Atmosphere pressure）：8.6×10^{4} Pa～1.06×10^{5}

6.2 时间/电流特性（Time-current Characteristic）

电流(In ratio) / 型号类别 (Item No.)	150%	210%	275%
5F 系列 5F Series	＞30min	＜30min	≥50ms ≤5s
20A I^2t 平均参考值	2402A^2S		

6.3 分断能力(Breaking capacity)

1）AC 250V 200A。

Breaking capacity:(AC250V)200A .

2）每一次测试，保险管能安全动作，不能出现以下现象：

In each of the tests, the fuse-link shall operate satisfactorily without any of the following phenomena:

-持续电弧；

-permanent arcing;

-引燃；

-ignition;

-保险管爆炸；

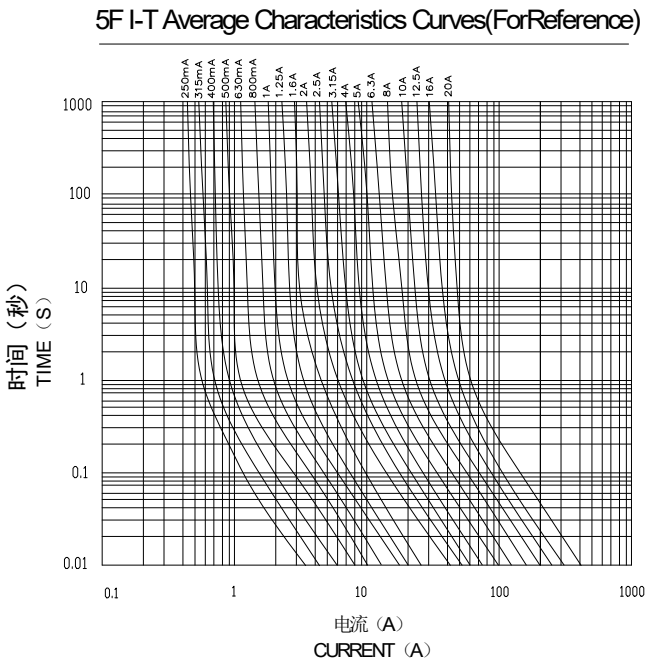
-Bursting of the fuse-link.

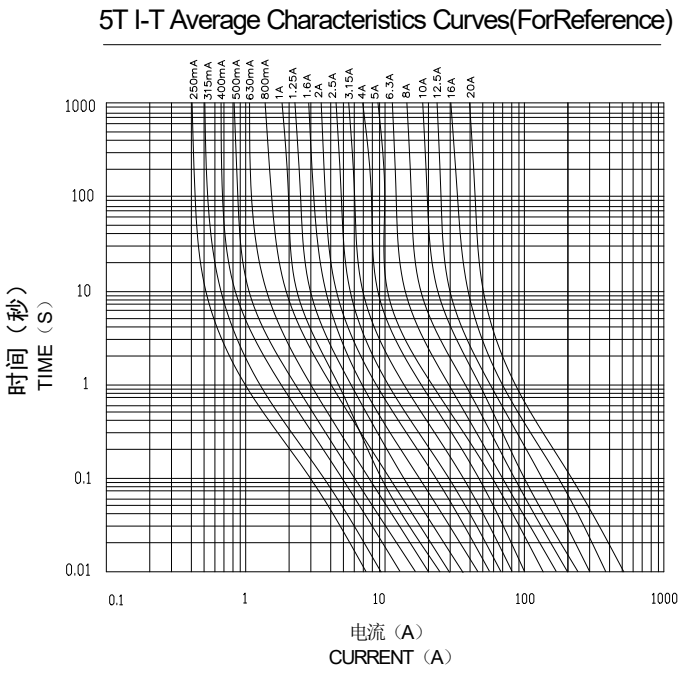
注意：颜色改变不认为是不合格.

NOTE：changes in color are not considered as a failure.

型号 Model	额定电流 Rated Current	安全认证分断电流 Safe attestation Breaking current cULus
5F 系列 5F Series	20A	200A AC 250V

6.4 时间电流特性曲线图(Time-current curves)





6.5 耐久性试验(Endurance test)

1）对保险丝通过 1.2 倍额定电流 1 小时，然后切断 15 分钟，重复此循环 100 次。

A current 1.2 In is passed through the fuse-link for a period of 1h.The current is then switched off for a period of 15 min.The cycle is repeated 100 times.

2）然后对熔断体通以 1.5 倍额定电流 30 分钟。

A current 1.5In is then passed through the fuse-link for 30 minutes.

3）测量熔断体两端的电压降，试验后，熔断体两端的电压降的增大量不大于试验前测得值的 10%。

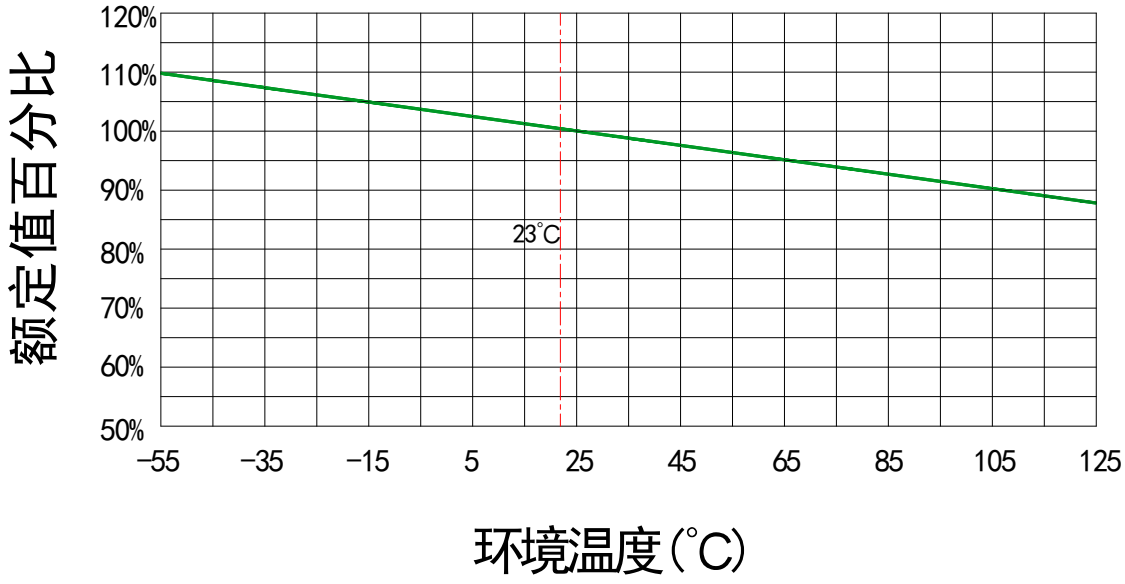
Finally,the voltage drop across the fuse-link is measured.The voltage drop across the fuse-link after the test shall not have increased by more than 10% of the value measured before the test.

4）试验后，标记仍应清晰可辨，而且诸如端帽上的焊点不应出现任何明显的劣变。

After the test,the marking shall still be legible and soldered joints on end caps,for example,shall not show and appreciable deterioration.

7. 环境特性 Environmental characteristic

7.1 温度-电流负荷比曲线 Temperature-Current Curve



7.2. 贮存条件 Storage conditions

贮存温度/Storage temperature: 5℃～35℃

贮存湿度/Storage humidity:25%～85%

贮存周期/Storage time:6 months

8. 信赖性试验(Reliability test)

项目/Item	试验要求/Test Requirement	试验条件/Test Condition
高低温试验 High & low Temperature Test	试验后保险丝管的电阻符合范围 After test, the resistance value of the fuses shall be in range	测试高温：85℃,测试时间:48h Test high temperature:85℃,Test time:48h 测试低温：-20℃,测试时间:48h Test low temperature:-20℃,Test time:48h
高湿试验 High Humidity Test	试验后保险丝管的电阻符合范围 After test, the resistance value of the fuses shall be in range	测试温度：85℃，测试湿度：95%，测试时间：96h Test temperature:85℃,Test humidity:95%, Test time:96h
落下、冲击实验 Falling Shock Test	铜帽应固定牢固，以保证在未损坏熔断体时，铜帽不能被卸下，铜帽表面镀层应牢固不易脱落，每个端帽应能经受专用的设备外加轴向拉力 5N，保持 1 分钟，玻璃管必须无缺陷破裂和缺损。试验后保险丝管的电阻符合范围。 Cap should be firmly attached so that it is not possible to remove them without damaging the fuse itself. The means of attachment shall be sufficient to withstand an axial pull of 5N applied to each cap for 1 minute. The cap shall be nickel plated firmly. The glass tube shall have no defects such as crack and injury. After falling shock test, the resistance value of the fuses shall be in range.	保险管从 152cm 高自由落下，跌落 5 次。 Falling Height:152cm Falling Times:5
振动试验 Vibration	试验后保险丝管的电阻符合范围 After test, the resistance value of the fuses shall be in range	振幅 1.5mm,频率 10～55～10Hz,时间 2 小时 Amplitude:1.5mm, Frequency:10 ～ 55 ～ 10Hz,Test time:2h

9. 产品标志(Marking)

9.1 保险丝上的标志应易于看清。

The marking on fuse shall be indelibly marked on the end cap and easily visible.

9.2 每个保险丝标记应包含下列内容：

The symbol for every fuse shall be as prescribed below:

1）额定电流(Rated current)：20A

2）额定电压(Rated voltage)：250V

3）型号(Model)：5F

4）安全认证标志(Safety mark logo)：

5）厂标(Trade mark)：

10．包装(500PCS/包、2000PCS/盒、24000PCS/箱)仅供参考,以实际数量为准.

Packaging （500PCS/Bag、2000PCS/Box、24000PCS ／External Carton）

11．料号解释/Part No. description

025.	2200	2	0003
5F Series	20A	250V	Information Code

JDYX8.E249609 - FUSES, SUPPLEMENTAL CERTIFIED FOR CANADA - COMPONENT

Fuses, Supplemental Certified for Canada - Component

See General Information for Fuses, Supplemental Certified for Canada - Component

XC ELECTRONICS (SHENZHEN) CORP LTD E249609
BLDG 11
HEAO HENGGANG, JINYUAN INDUSTRY ZONE
SHENZHEN, GUANGDONG 518115 CHINA
Supplemental fuses: cartridge enclosed

Cat. No.	Size mm(in)	Amps (A)	Volts (V)	Interrupting Rating (A)
5F	5.2 x 20 (0.20 x 0.79)	0.25 - 0.8	250Vac	35
		1	250Vac	35
		4	250Vac	40
		5	250Vac	50
		6.3	250Vac	63
		1.25	250Vac	35
		8	250Vac	80
		10	250Vac	100
		1.6 – 3.15	250Vac	35
		12.5 - 20	250Vac	200
5G	5.2 x 20 (0.20 x 0.79)	12 - 20	250Vac	200
		12 - 20	125Vac	200
5S	5.2 x 20 (0.20 x 0.79)	12 - 20	250Vac	200
		12 - 20	125Vac	200
6F	6.35 x 31.8 (0.25 x 1.25)	0.08 - 30	125Vac	200
		0.08 - 30	250Vac	200
6G	6.35 x 31.8 (0.25 x 1.25)	12	125Vac	200
		12	250Vac	200
		15 - 20	125Vac	200
		15 - 20	250Vac	200
		25 - 30	125Vac	200
		25 - 30	250Vac	200
6S	6.35 x 31.8 (0.25 x 1.25)	12 - 15	125Vac	200
		12 - 15	250Vac	200
		-	-	-
		-	-	-
		20 - 30	125Vac	200
		20 - 30	250Vac	200
6T	6.35 x 31.8 (0.25 x 1.25)	0.08 - 30	125Vac	200
		0.08 - 30	250Vac	200

Supplemental fuses: filled-tube

Cat. No.	Size mm(in)	Amps (A)	Volts (V)	Interrupting Rating (A)
5C	5.2 x 20 (0.20 x 0.79)	0.2 – 10	250Vac	1500
		0.2 – 10	300Vac	1500
		12 - 20	250Vac	1500
		12 - 20	300Vac	1500
5H	5.2 x 20 (0.20 x 0.79)	0.2 – 10	250Vac	1500
		0.2 – 10	300Vac	1500
		12 - 20	250Vac	1500
		12 - 20	300Vac	1500

Supplemental fuses: filled-tube, cartridge enclosed

Cat. No.	Size mm(in)	Amps (A)	Volts (V)	Interrupting Rating (A)
5CH	5.2 x 20 (0.20 x 0.79)	0.1 – 10	400Vac	2000
		0.1 – 20	500Vac	500
		0.1 – 20	600Vac	300
		0.1 – 10	400Vdc	2000
		0.1 – 20	500Vdc	500
		0.1 – 20	600Vdc	300
6C	6.35 x 31.8 (0.25 x 1.25)	0.08 – 30	125Vac	1500
		-	-	-
		0.08 – 30	250Vac	1500
		-	-	-
		0.08 – 30	300Vac	1500
		-	-	-
		0.08 – 30	350Vac	1500
		-	-	-
		0.08 – 30	400Vac	1500
		-	-	-
		0.08 – 30	450Vac	1500
		-	-	-
		0.08 – 30	500Vac	1500
6CH	6.35 x 32 (0.25 x 1.26)	0.1 – 15	1000Vac	10000
		0.1 – 15	1000Vdc	10000
		0.1 – 30	500Vac	30000
		0.1 – 30	500Vdc	30000
		0.1 – 30	660Vac	1500
		0.1 – 30	660Vdc	1500
		0.1 – 15	660Vac	10000
		0.1 – 30	660Vdc	10000

6H	6.35 x 31.8 (0.25 x 1.25)	0.08 – 30	125Vac	1500
		-	-	-
		0.08 – 30	250Vac	1500
		-	-	-
		0.08 – 30	300Vac	1500
		-	-	-
		0.08 – 30	350Vac	1500
		-	-	-
		0.08 – 30	400Vac	1500
		-	-	-
		0.08 – 30	450Vac	1500
		-	-	-
		0.08 – 30	500Vac	1500

Supplemental fuses: pigtail leads, filled-tube, surface mount

Cat. No.	Size mm(in)	Amps (A)	Volts (V)	Interrupting Rating (A)
8TE	12.4 x 6.4 x 9.7 (0.49 x 0.25 x 0.38)	0.08 – 20	400Vac	200
		0.08 – 20	350Vac	200
		0.08 – 20	300Vac	200
		0.08 – 20	250Vac	200
		0.08 – 20	125Vac	200

Supplemental fuses: time delay, cartridge enclosed

Cat. No.	Size mm(in)	Amps (A)	Volts (V)	Interrupting Rating (A)
5T	5.2 x 20 (0.20 x 0.79)	0.25 – 0.315	250Vac	35
		0.5 - 8	250Vac	35
		1	250Vac	35
		1.6 - 3.15	250Vac	35
		4	250Vac	40
		5	250Vac	50
		6.3	250Vac	63
		0.4	250Vac	35
		1.25	250Vac	35
		8	250Vac	80
		10	250Vac	100
		12.5 – 20	250Vac	200

Supplemental micro fuses

Cat. No.	Size mm(in)	Amps (A)	Volts (V)	Interrupting Rating (A)
12F	3.2 x 1.6 x 0.65 (0.13 x 0.06 x 0.03)	0.25 – 4	63Vdc	100
		4.5 - 7	32Vdc	100
		8 – 12	24Vdc	150
12T	3.2 x 1.6 x 0.65 (0.13 x 0.06 x 0.03)	0.25 – 4	63Vdc	100

		4.5 - 7	32Vdc	100
		8 – 12	24Vdc	150

Supplemental micro fuses: pigtail leads, filled-tube

Cat. No.	Size mm(in)	Amps (A)	Volts (V)	Interrupting Rating (A)
2F	2.7 x 7.3 (0.11 x 0.29)	0.25 – 1	250Vac	25
		1.25 – 10	250Vac	25

Supplemental micro fuses: cartridge enclosed

Cat. No.	Size mm(in)	Amps (A)	Volts (V)	Interrupting Rating (A)
4F	-	0.2 – 6.3	300Vac	50
		0.2 – 6.3	350Vac	50
4T	-	0.2 – 6.3	300Vac	50
		0.2 – 6.3	350Vac	50

Supplemental micro fuses: pigtail leads, filled-tube

Cat. No.	Size mm(in)	Amps (A)	Volts (V)	Interrupting Rating (A)
2T	2.7 x 7.3 (0.11 x 0.29)	0.25 – 1	250Vac	25
		1.25 – 10	250Vac	25
5TR	8.35 x 7.8 (0.33 x 0.31)	0.25 – 6.3	350Vac	100
		0.25 – 6.3	300Vac	100
		0.25 – 3.15	250Vac	35
		3.5 - 4	250Vac	40
		5	250Vac	50
		6 – 6.3	250Vac	63
		0.25 – 3.15	250Vac	35
		4	250Vac	40
		5	250Vac	50
		6.3	250Vac	63
		0.08 – 20	125Vac	200
		0.08 – 20	250Vac	200
		0.08 – 20	300Vac	200
		0.08 – 20	350Vac	200

Supplemental micro fuses: pigtail leads, filled-tube, surface mount

Cat. No.	Size mm(in)	Amps (A)	Volts (V)	Interrupting Rating (A)
24F	6.1 x 2.6 x 2.6 (0.24 x 0.10 x 0.10)	0.25 - 10	125Vac	50
		0.25 - 10	250Vac	50
		0.25 - 10	125Vdc	50
		0.25 - 10	250Vdc	25
24T	6.1 x 2.6 x 2.6 (0.24 x 0.10 x 0.10)	0.25 - 10	125Vac	50
		0.25 - 10	250Vac	50
		0.25 - 10	125Vdc	50
		0.25 - 10	250Vdc	25

32F	10 x 3.2 x 3.2 (0.39 x 0.13 x 0.13)	0.25 - 10	250Vac	50
		0.25 - 10	125Vac	50
		0.25 - 10	250Vdc	50
		0.25 - 10	125Vdc	50
32T	10 x 3.2 x 3.2 (0.39 x 0.13 x 0.13)	0.25 - 10	250Vac	50
		0.25 - 10	125Vac	50
		0.25 - 10	250Vdc	50
		0.25 - 10	125Vdc	50

Conditions of Acceptability.

1. For use only in complete equipment where the acceptability is determined by UL.

2. The SF series devices were evaluated to the manufacturer\'s specifications and are identical to IEC-127-1 Sheet 2 except for the clearing times of the 6.3A model which had clearing times of 26.4 ms, 20.0 ms and 20.2 ms when subjected to 10 times the rated current. The allowed clearing time at this current level is 20.0 ms maximum.

3. The ST series devices were evaluated to the manufacturer\'s specifications and are identical to IEC 127-1 Sheet 2 except the clearing times of the 1A model which had clearing times of 336 ms, 344 ms and 342 ms when subjected to 2.75 times the rated current; 111 ms, and 108 ms when subjected to 4 times the rated current; 16.8 ms, 17.8 ms and 15.6 ms when subjected to 10 times the rated current. The allowed clearing times at these current levels are 600 ms-10 s; 150 ms-3 s and 20 ms-300 ms respectively.

Marking: Company name or trademark , model designation and the Recognized Component Mark for Canada.

Last Updated on 2019-07-18