选型参数表

Table of selection parameters

厂家型号	安规认证
32F 250mA250V	cULus
32F 400mA250V	cULus
32F 500mA250V	cULus
32F 1A250V	cULus
32F 1.25A250V	cULus
32F 2A250V	cULus
32F 2.5A250V	cULus
32F 3A250V	cULus
32F 3.15A250V	cULus
32F 4A250V	cULus
32F 4.5A250V	cULus
32F 5A250V	cULus
32F8A250V	cULus
32F 10A250V	cULus
32F 20A250V	cULus
32F 25A250V	cULus
32F 30A250V	cULus
32F 40A250V	cULus
32F 50A250V	cULus
32F 60A250V	cULus

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）:

32F：陶瓷快断系列产品 （32F：Ceramic Quick Blow Fuses）

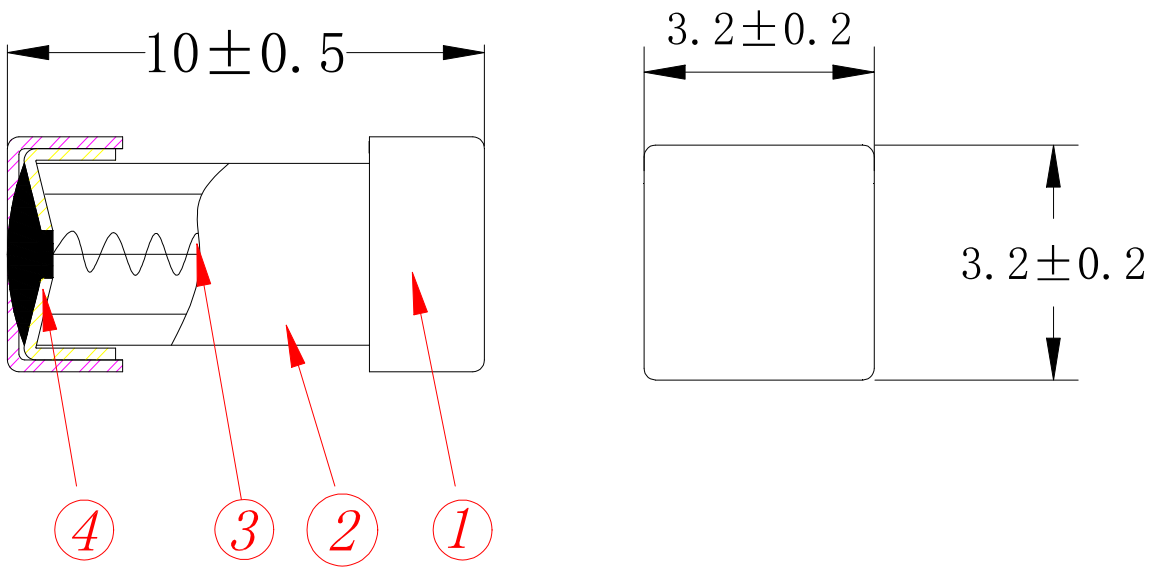
3. 相关标准（Safety Standards）：

机构 Agency	机构文件编号 Agency File Number	电压/电流额定值 Voltage/ Current Rating
c UL us	E249609	125V/250V AC: 0.25A～60A

4. 尺寸与结构(Size and Structure)：

4．1 外形、结构尺寸(**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	镀银黄铜 Ag- plated copper	
②	陶瓷管 Ceramic Tube	陶瓷 Ceramic	
③	熔丝 Melting Wire	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	商标.品名.认证 Trademark.Type.Approved mark	认证号 Approval No.
32F Series	F5A	UR:E249609

4.3 陶瓷管（Ceramic Tube）

管体本体无破裂、缺损等现象。

The tube shall have no defects such as crack, injury and contamination.

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）：$8.6x10^4$ Pa～$1.06x10^5$ Pa

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

电流(In ratio) / 型号类别（Item No.）	100%	200%
32F 系列（32F Series）	＞4h	≤60s
5A I^2T 平均参考值	$91.5A^2S$±20%	

6.3 分断能力(Breaking capacity)

1）150A @AC 250V.

Breaking capacity:150A (@AC250V).

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.

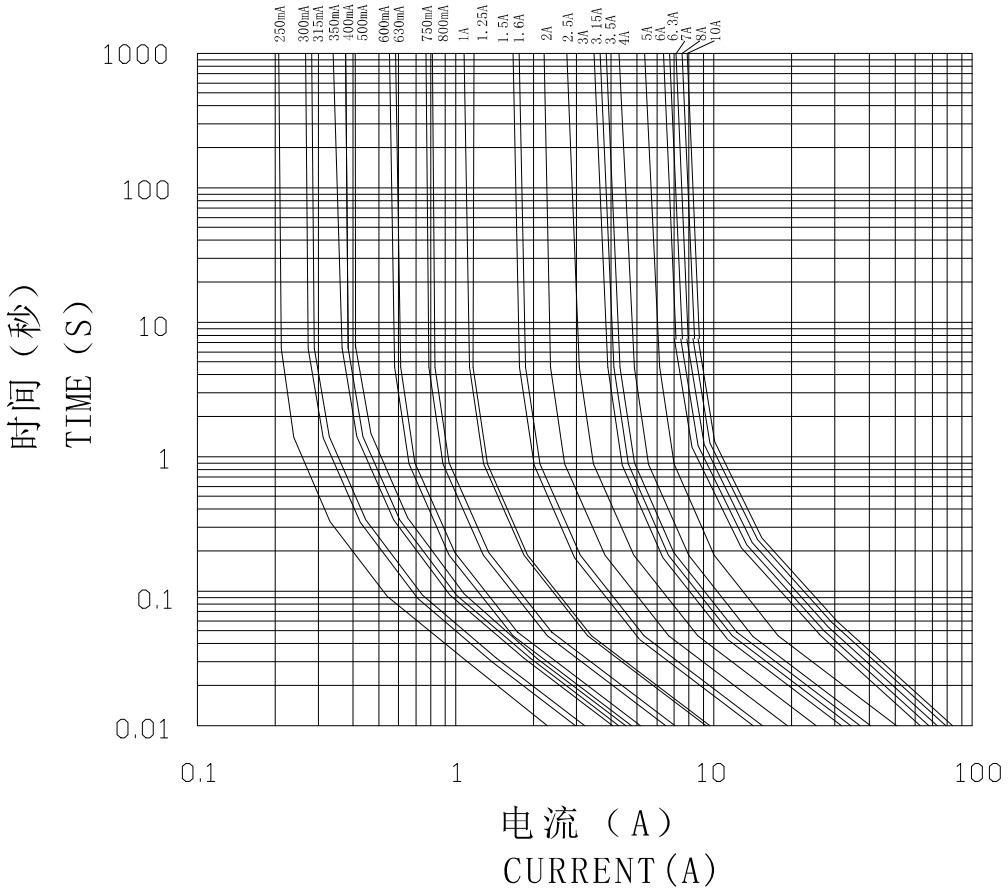
6.4 负载试验(Current-carrying capacity test)

对熔断体通以 1 倍额定电流不小于 4 小时，熔断体不断开。

A current 1In is then passed through the fuse-link more than 4hours,

the fuse-link is OK.

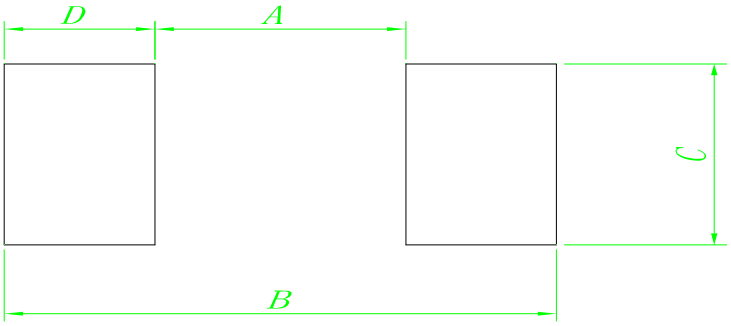
6.5 时间电流特性曲线图(Time-current curves)



7. 安装方式及条件 Installation Way and Parameters

7.1 建议如下图焊盘安装

Propose that the following picture installation way is installed

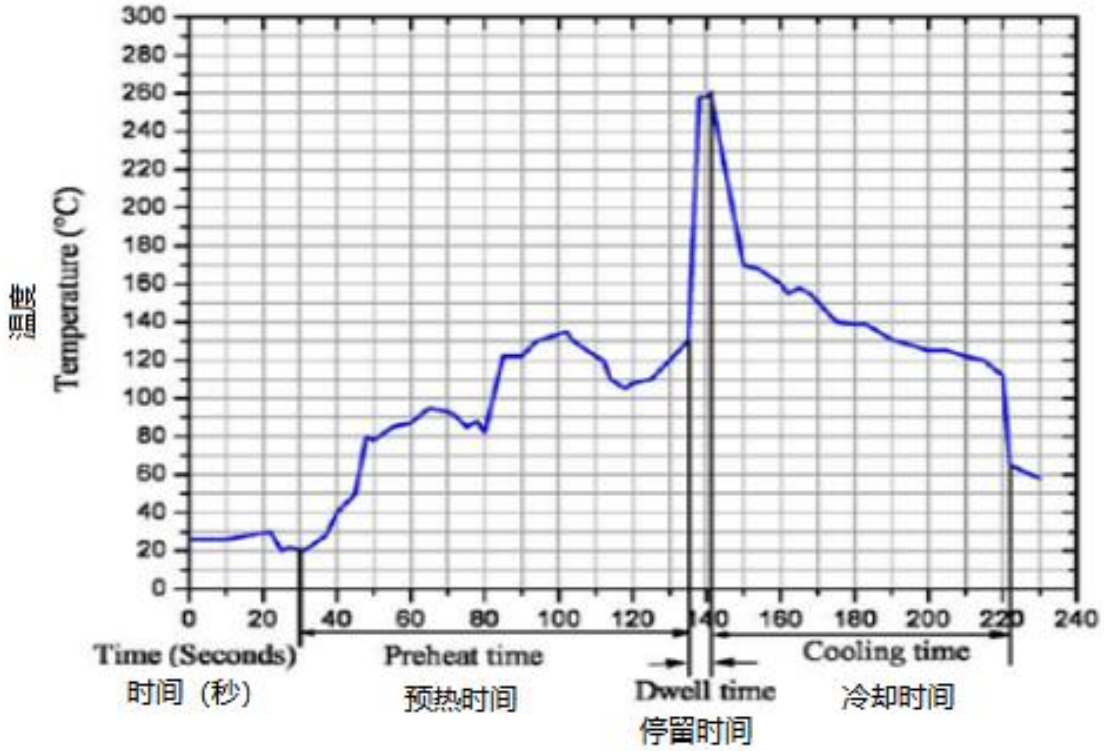


Dimensions	A	B	C	D
spec	5.72±0.3	12.6±0.3	3.43±0.3	3.25±0.3

7.2 环保焊接条件 Soldering conditions(RoHS)

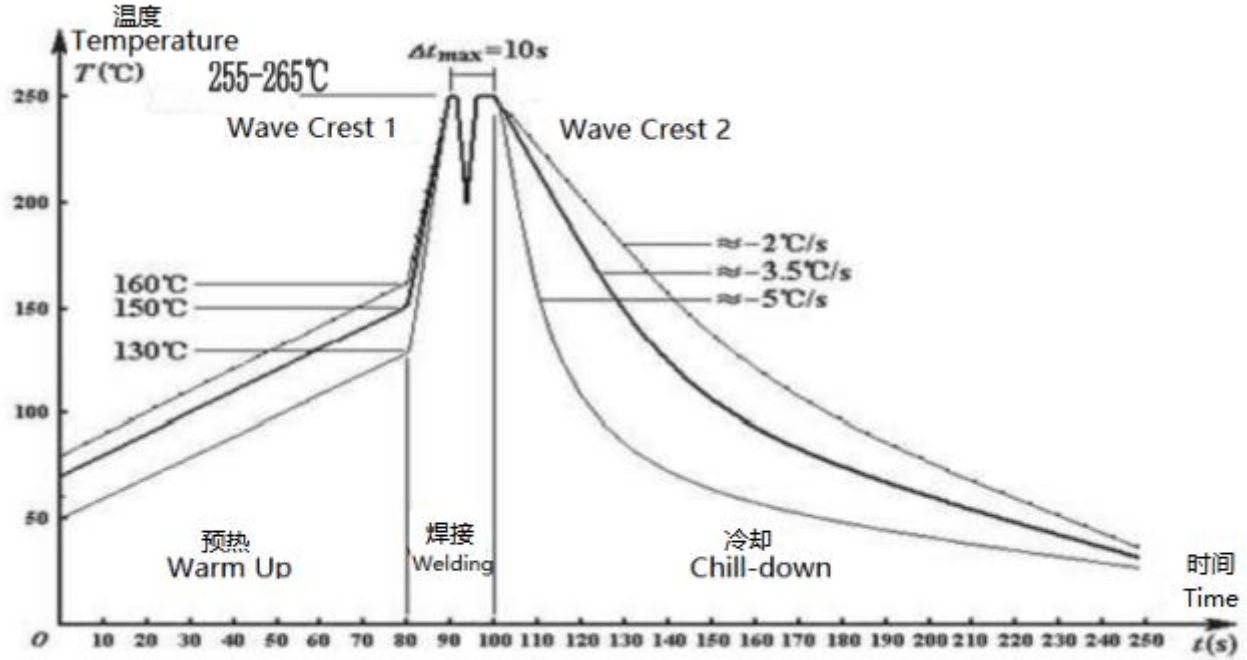
波峰焊/Wave solder:260℃,≤5S

手工焊/Hand solder: 360℃,≤1S



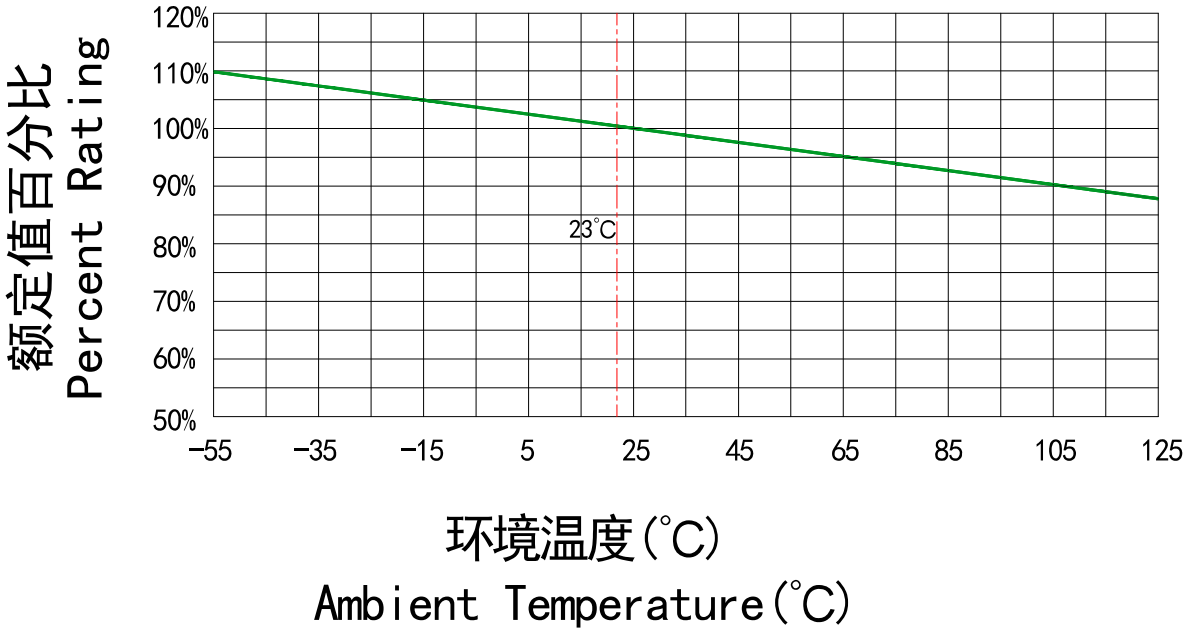
焊接峰值：Soldering Peak:

260±5℃-10 秒/260±5℃ - 10 sec



8. 环境特性 Environmental characteristic

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



理想保险丝选择的计算

$$\text{Calculation for ideal fuseselection} = \frac{\text{OperatingCurrent(A)}}{\text{Rating (\%x0.75)}}$$

8.2 工作温度/Operating temperature :-55℃～125℃

8.3 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

9. 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	试验后保险管的电阻变化率小于10%，熔断特性符合要求。 The resistance change rate of the fuse tube after the test is less than 10%, and the melting characteristics meet the requirements.	测试高温：85°C,测试时间:48h Test high temperature:85°C, Test time:48h; 测试低温：-20°C，测试时间:48h Test low temperature:-20°C, Test time 48h

高湿试验 High Humidity Test	试验后保险管的电阻变化率小于 10%，熔断特性符合要求， The resistance change rate of the fuse tube after the test is less than 10%, and the melting characteristics meet the requirements.	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，陶瓷管必须无缺陷破裂和缺损。试验后保险管的电阻变化率小于 10%，熔断特性符合要求。 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 ceramic tube shall have no defects such as crack and injury. The resistance change rate of the fuse tube after the test is less than 10%, and the melting characteristics meet the requirements.	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	试验后保险管的电阻变化率小于 10%，熔断特性符合要求。 The resistance change rate of the fuse tube after the test is less than 10%, and the melting characteristics meet the requirements.	振幅 1.5mm,频率 10～55～10HZ,时间 2 小时 Amplitude;1.5mm,Frequency:10 ～ 55 ～ 10HZ,Test time ;2h

10 产品标志(Marking)

10.1 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.

10.2 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)：5A

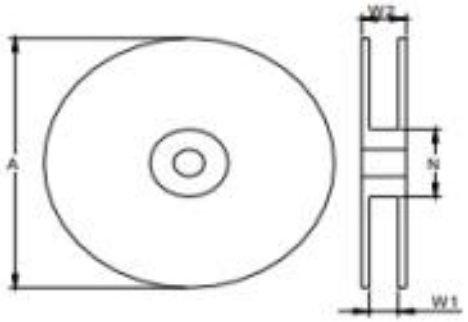
2）特性符号(Characteristic symbol)：F

3）厂标(Trade mark)：

11. 包装(Packaging)

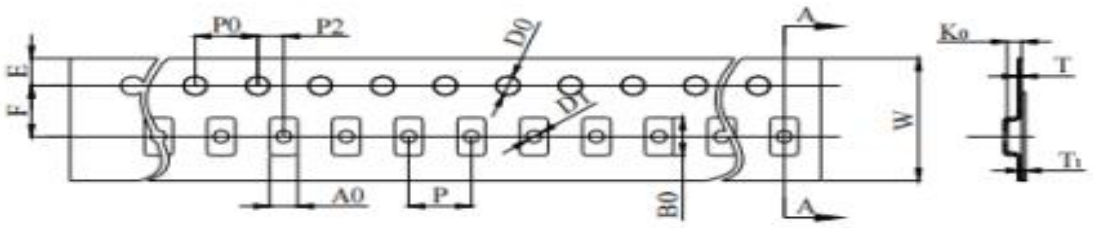
每卷 1K 保险丝,装入一个包装盒,每 10K 装一箱,包装数量仅供参考,以实际数量为准.

1K Pieces taped and reeled in one box,10K/External Carton.



Unit(mm)

A±2	N±1	W1±1.5	W2±1.5
330.00	100.00	26.00	28.50



Unit(mm)

W	24.00±0.30	D0	1.50±0.10
P0	4.00±0.10	F	11.50±0.10
P	8.00±0.10	E	1.75±0.10
P2	2.00±0.10	T	0.35±0.05
A0	1.50±0.10	T1	Max.0.1
B0	10.3±0 01.0	K0	3.50±0.10

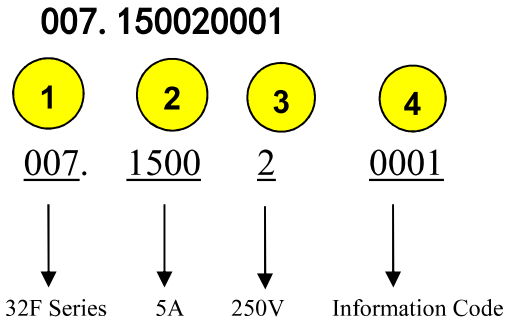


1K/Taped and Reeled



10K/ External Carton

12.料号解释/Part No. Description



1．产品系列 Product Series ..... 007(32F)（见下表 12.1 See table 12.1 below)

2．额定电流 Ampere Rating ..... 5A（见下表 12.1 See table 12.1 below)

3．额定电压 Rated Voltage ..... 1－125V （见下表 12.1 See table 12.1 below)

2－250V

3－32V

4－350V

5－400V

6－300V

4．补充码 Supplementary Code .....

12.1 产品系列/额定电流/额定电压 Product Series /Ampere Rating/ Rated Voltage

产品系列 Product Series			额定电流 Ampere Rating		额定电压 Rated Voltage
06F(001)	5SH(024)	13FV(063)	0125(125mA)	1700(7A)	1(125V)
06T(002)	5F(025)	14C(064)	0160(160mA)	1800(8A)	2(250V)
12F(003)	5T(026)	50H(065)	0200(200mA)	2100(10A)	3(32V)
12T(004)	5C(027)	38C(066)	0250(250mA)	2120(12A)	4(350V)
24F(005)	5H(028)	40H(067)	0315(315mA)	2125(12.5A)	5(400V)
24T(006)	6G(029)	21H(068)	0375(375mA)	2150(15A)	6(300V)
32F(007)	6S(030)	10H(069)	0400(400mA)	2160(16A)	7(500V)
32T(008)	6F(031)	50C(070)	0500(500mA)	2200(20A)	8(380V)
5TR(009)	6C(032)	70H(078)	0630(630mA)	2250(25A)	9(450V)
4TE(010)	6H(033)	30H(079)	0750(750mA)	2300(30A)	A(600V)
5TE(011)	5CH(034)	54H(081)	0800(800mA)	2350(35A)	B(660V)
8TE(012)	6CH(035)	60H(082)	1100(1A)	2400(40A)	C(1000V)
2F(013)	10C(036)	74H(083)	1125(1.25A)	2450(45A)	D(24V)
2T(014)	10FV(037)	9F(087)	1160(1.6A)	2500(50A)	E(63V)

3G (015)	6T (038)	6FV (090)	1200 (2A)	2500 (50A)	F (5000V)
3S (016)	5CP (039)		1250 (2. 5A)	3100 (100A)	G (690V)
3F (017)	6GP (041)		1300 (3A)	3115 (115A)	H (240V)
3T (018)	9C (042)		1315 (3. 15A)	3120 (120A)	I (750V)
4F (019)	5FE (043)		1350 (3. 5A)	3125 (125A)	J (80V)
4T (020)	6B (044)		1400 (4A)	3130 (130A)	K (800V)
5G (021)	9L (053)		1500 (5A)	3135 (135A)	L (1250V)
5S (022)	17C (061)		1600 (6A)	3200 (200A)	M (1500V)
5GH (023)	22C (062)		1630 (6. 3A)	3250 (250A)	P (220V)

XC Electronics(Shenzhen)Corp.,LTD
旭程电子（深圳）有限公司
样品测试报告
Sample Test Report

Item项目	Micro fuse小型熔断体：		☐glass tube玻璃管		☑Pceramic tube陶瓷		☐others其它	
Model型号	32F							
ratings 额定值	8 A		250 V				额定分断电流 Rated breaking current	150A
standard 适用标准	UL 248			ambient temperature 环境温度		26 ℃	Relative humidity 相对湿度	65%
	Test content测试内容						other performance其它性能	
	load test 负载测试	temperature rise test 温升测试	blow test 熔断测试				size 尺寸	OK
standard 标准	100%	%	200%	%	%	%		
	4 hour.Min.	℃.Max.	60s Max.				cold resistance 冷电阻	
test current 测试电流	8A	A	16A					
1	＞4h		2.1s					
2	＞4h		1.9s				strength 强度	pull strength 拉力 10 N/1min
3	＞4h		2.1s					
4								
5							Durability Test 耐久性试验	
6								
7								
8							remark 标识	the other cap 标志 F8A
9								
remark 备注							result 判定	Prepared 拟 制 瞿馨瑶2025.12.23
							旭程电子(深圳)有限公司 产品可靠性测试 合格	Checked 审 核 品管部 Jonson
								Approved 批 准

ZJ10-030/A1

UL Product iQ®

Model 32F

File Number: E249609

COMPANY

XC ELECTRONICS (SHENZHEN) CORP LTD
BLDG 11
HEAO HENGGANG, JINYUAN INDUSTRY ZONE
SHENZHEN, Guangdong Sheng 518115 China

MODEL INFO

32F
Supplemental micro fuses: surface mount

SUPPLEMENTAL FUSES	VALUE
Micro Fuse	Yes
Pigtail Leads	No
Surface Mount	Yes
Cartridge Enclosed	No
Time Delay	No
Paper Tube	No
Filled Tube	No
OD - Length	10 mm
Length - Width	3.2 mm
Height	3.2 mm

RATING TABLE

Amps Minimum (A)	Amps Maximum (A)	Voltage (V)	Voltage Source	Interrupting Rating (A)
0.25	10	250	ac	50
0.25	10	125	ac	50
0.25	10	250	dc	50
0.25	10	125	dc	50
0.25	60	250	ac	150
0.25	60	125	ac	150
0.25	60	250	dc	150
0.25	60	125	dc	150

Report Date: 2015-11-11

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