

产 品 承 认 书
Product Approval Sheet

编号 NO.	9321315278-F/3-B
日期 Date	2024.11.29

客户 (Customer)	
品名 (Product)	方形超小型保险丝 Box Subminiature Fuse
系列 (Series)	932 系列 932 Series

料号 (Part No.)	规格描述 (Specification)	备注 (Remark)
贝特电子 Betterfuse	方形塑壳, 慢断电流保险丝 Square plastic case, Time-Lag current fuse	
客户 Customer		

环保符合性说明 (Instructions for HSF)

本产品符合: ☒ RoHS 2.0 ☒ HF ☒ REACH ☒ LEAD FREE ☐ 其他备注

供应商-贝特 Supplier-Better fuse		确认合格章 (Confirm qualified Signet)	客 户 (Customer)	零件承认章 (Approval Signet)
制 作 Make	Hongkun Huang			
审 核 Check	Xiao Lin			
确 认 Approval	Zujiang Wang			

联络 (Contact)

业务 (Sales)	电话 (Telephone)	手机 (Cellphone)	邮箱 (E-mail)

零件承认后敬请回签一份给我司留存, 或将承认后的封面回传至我司邮箱, 谢谢!

Please sign a copy of the parts for our company or fax the acknowledged cover to our E-mail. Thanks!



变更履历 Modified Information

序号 (No.)	日期 (Date)	修订内容 (Modified Content)	页码 (Page)	版本 (Edition)	制定人 (Prepared by)	审核人 (Checked by)
1	2014.02.14	Draft	6	A/0	Runsong Zhong	Lianghua Guo
2	2014.04.08	Add TUV certification	6	A/1	Kings Luo	Wenhua Yan
3	2015.02.04	Add 125mA and 250mA CQC certification;Add 200mA I-T curve	4,15,16	A/2	Kings Luo	Wenhua Yan
4	2015.02.09	Add 8A and 10A CQC certification	19,20	A/3	Kings Luo	Wenhua Yan
5	2015.06.18	The fuse high to change the 7.6mm	5	A/4	Jeffery	Gem Guo
6	2015.08.04	Update UR certification		A/5	Jeffery	Gem Guo
7	2015.09.09	Update CQC, TUV certification		B/0	Jeffery	Gem Guo
8	2015.11.18	Update the tapping	9	B/1	Jeffery	Lin Gao
9	2015.12.12	Update PSE certification		B/2	Jeffery	Lin Gao
10	2016.01.14	Update I ² T value		B/3	Jeffery	Wenhua Yan
11	2016.04.15	Add the 0.16A~0.4A CQC certification	3,7	B/4	Jeffery	Helge
12	2016.08.24	Change the construction		B/5	Jeffery	WenQiang Luo
13	2017.12.08	Update BSI, SEMKO certification		C/0	J.Q.	Fei Gao
14	2018.03.05	Update TUV certification		C/1	J.Q.	Fei Gao
15	2018.10.08	Change of the innor core and material	4	C/2	Xiong Xiang	Fei Gao
16	2019.02.25	Update UL certification	7	C/3	Xiong Xiang	Fei Gao
17	2019.03.11	Add 6.3A PSE certification	7	C/4	Xiong Xiang	Fei Gao
18	2019.04.24	Add 12A,12.5A,15A and 16 I-T curve	6	C/5	Xiong Xiang	Fei Gao
19	2019.10.14	Change CQC to CCC		D/0	Xiong Xiang	Fei Gao
20	2020.04.23	Update tape drawing		D/1	YaLan Wang	Fei Gao
21	2020.04.24	Add 300V CQC certification		D/2	YaLan Wang	Fei Gao
22	2020.06.30	Update content		D/3	YaLan Wang	Fei Gao
23	2020.08.24	Add 12.5A;16A 250V CQC certification		D/4	YaLan Wang	Fei Gao
24	2021.01.21	Add 630mA~10A 250V TUV certification	5,9	D/5	Wenshan chen	Fei Gao
25	2021.01.25	Add 12.5A,16A 250V TUV certification	5,9	E/0	Wenshan chen	Fei Gao
26	2021.09.15	Update parameter of 12.5A	9	E/1	Wenshan chen	Fei Gao
27	2021.09.27	Add Supplementary Code of 01	6	E/2	Wenshan chen	Fei Gao

表格编号: RD-37

版次: A/0

日期: 2020.03.01

东莞市贝特电子科技股份有限公司 Dongguan Better Electronics Technology Co., Ltd.

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28	2022.10.20	Update UL certification No. of 1~5A	5	E/3	Hongkun Huang	Fei Gao
29	2022.11.08	Update Intertek certification No.	5	E/4	Hongkun Huang	Fei Gao
30	2022.12.08	Update Electrical characteristics	7	E/5	Hongkun Huang	Fei Gao
31	2023.06.05	Update PSE certification No. of 10A	7	F/0	Hongkun Huang	Fei Gao
32	2024.09.23	Update the 2.5A Resistance	6	F/1	Hongkun Huang	Xiao Lin
33	2024.10.15	Add 8A,10A KC certification;	6	F/2	Hongkun Huang	Xiao Lin
34	2024.11.29	Put in Printing Mark info.	6	F/3	Hongkun Huang	Xiao Lin

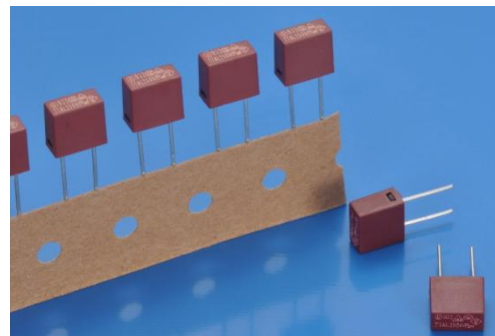
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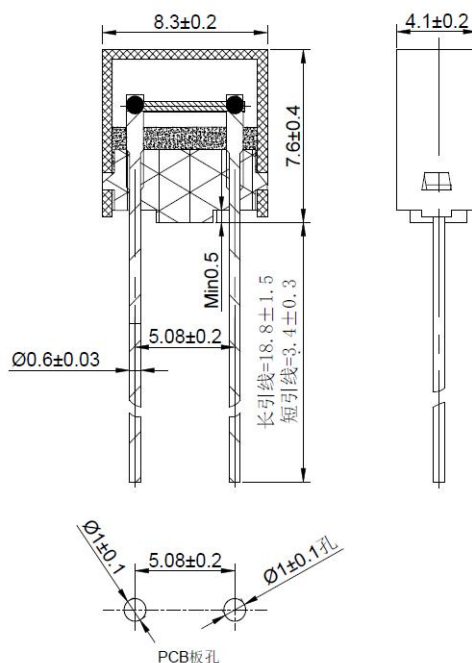
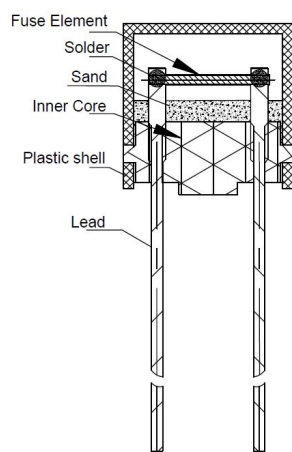
1. 基本信息 Scope and Description

- 932 系列为方形塑壳，慢断电流保险丝
932 series is Square plastic case, Time-Lag current fuse.
- 依照标准 IEC 60127 设计
Designed compliant to IEC60127
- 最大额定电压为 400V AC，额定电流为 125mA-16A
Max Rated voltage is 400V AC. Current range is 125mA~16A.
- 工作温度为-55℃~125℃
Operating temperature is -55℃~125℃
- 符合 RoHS，HF，无铅
RoHS compliant, Halogen-free, Lead-free.



2. 形状, 尺寸和材料 Shape, Size and Material

单位 Unit:mm



图一: 产品示意图(Product sketch)

图二: 产品尺寸图(Product dimensions)

材料名称与成分表 Material name and composition table:

序号 No.	名称 Part Name	成分 Component	数量 Volume
1	熔丝 Element	合金线 Alloy wire	1
2	焊锡 Solder	无铅焊锡 Lead-free solder	*
3	填充物 Filler	沙 Sand	*
4	内芯 Inner Core	塑胶 PA66	1
5	外壳 Shell	塑胶 PA66	1

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6	引线 Lead wire	镀锡铜线 Tinned copper wire	2
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3. 安规认证 Agency Approval

安规 Agency	安规证书 Agency File Number	额定电压/电流 Ampere/ Voltage Range
	E300003	125V / 250V / 277V / 300V/ 400V:100mA~16A
	40033369	250V AC:630mA;800mA;1A;1.25A;1.6A;2A;2.5A;3.15A;4A;5A;6.3A
	CQC20012242947 CQC20012260656	300V AC: 500mA;1A;1.25A;1.6A;2A;2.5A;3.15A;4A;5A;6.3A;8A;10A 250V AC :12.5A;16A
	2020970207000039	250V AC:125mA;160mA;200mA;250mA;315mA;400mA; 500mA;630mA;800mA;1A;1.25A;1.6A;2A;2.5A;3.15A;4A;5A;6.3A;8A;10A
	PSE22022271 PSE19021462 PSE23022406	250V AC:1A;1.25A;1.6A;2A;2.5A;3.15A;4A;5A 250V AC:6.3A 250V AC:10A
	SU05042-13003 SU05042-13002 SU05042-13001 SU05042-24002	250VAC:500mA;630mA;800mA;1A;1.25A;1.6A;2A;2.5A; 3.15A ;4A; 5A;6.3A;8A;10A;
	R 50279350 R 50450787	250V/300V AC: 125mA;160mA;200mA;250mA;315mA; 400mA;500mA; 630mA; 800mA;1A;1.25A;1.6A;2A;2.5A;3.15A;4A;5A;6.3A;8A;10A 250V AC: 12.5A;16A;20A
	KM 677189	250V AC:3.15A;5A;8A;10A
	SE-S-2201334	250V AC:3.15A;5A;8A;10A



4. 印字 Mark

印字 Marking						
本体 Body						
例如 Example: (b) 932 VDE CCC PSE KC T 3.15A L 250V cURus						
公司商标 Company Logo	型号 Model	安规符号 Approvals Symbol	特性符号 Characteristic Symbol	额定电流 Rated current	分断能力符号 BC Symbol	额定电压 Rated Voltage
(b)	932	 (说明: 请以实际印入符号为准) (NOTE: Please refer to the actual printed Symbols for accuracy)	T	100mA~16A	L	250V (说明: 请以实际印入电压值为准) (NOTE: Please refer to the actual printed Voltage values for accuracy)

5. 电气特性 Electrical Characteristic

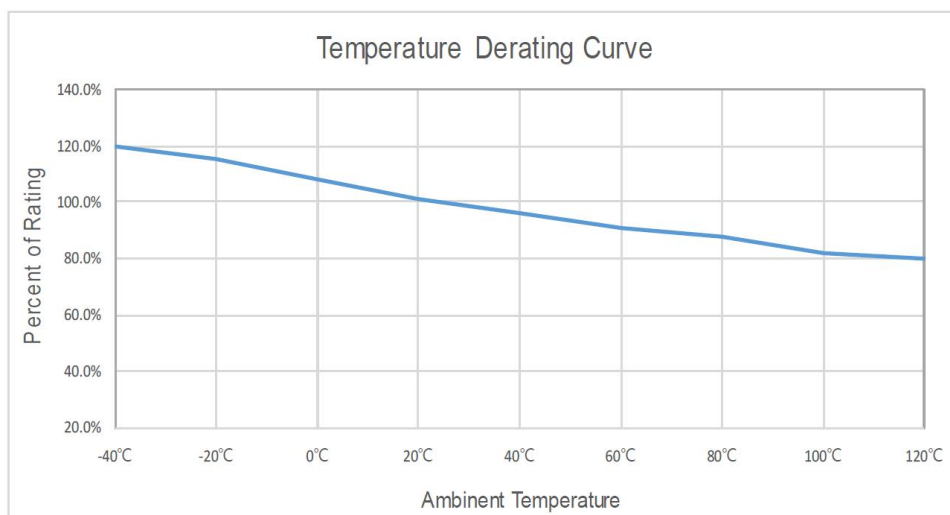
5.1 负载特性：通过额定电流值 150 % (亦即 $1.5 \times I_n A$)，能连续通电至少 1 小时无任何熔断现象。

Load capacity: Load 150% rated current (i.e. $1.5 \times I_n A$) for flowing, it can be continuously energized for at least 1 hour without any opening phenomenon.

5.2 IT 特性 IT characteristic:

Rated Current	150%	210%	275%	400%	1000%
100mA~6.3A	>1h	<2min	400ms~10s	150ms~3s	20ms~150ms
8A~10A	>1h	<300s	1s~20s	150ms~3s	20ms~150ms
12A~16A	>1h	<300s	1s~50s	150ms~5s	20ms~150ms

5.3 温度降额曲线图: Temperature derating curve



$$\text{Calculation for ideal fuse selection} = \frac{\text{Operating Current (A)}}{\text{Rating} \times 0.75}$$



5.4 电气参数与安规认证 Electronic Parameters And Approvals

电流代码 Amp Code	额定电流 Rated Amp	额定电压 Rated Voltage	最大电压降 Max Ud (mV)	最大功耗 Max.Power Dissipation (mW)	电阻典型值 Typical Resistance (mΩ)	Nominal Melting I ² T (A ² S)	分断能力 Breaking Capacity	安规认证 Approvals									
								cURus	VDE	CCC	CQC	PSE	KC	TUV 250V	TUV 300V	BSI	SEMKO
0125	125mA	125V AC 250VAC 300VAC 400V AC	300	180	1500	0.053	100A@125V AC 100A@250V AC 50A or 10In 300V AC 160A@125V/250V AC 100A@277V/300V/400V AC AC	●	○	●	○	○	○	●	●	○	○
0160	160mA		280	190	1290	0.073		●	○	●	○	○	○	●	●	○	○
0200	200mA		260	200	796	0.170		●	○	●	○	○	○	●	●	○	○
0250	250mA		240	220	540	0.320		●	○	●	○	○	○	●	●	○	○
0315	315mA		220	250	380	0.450		●	○	●	○	○	○	●	●	○	○
0400	400mA		200	280	245	1.32		●	○	●	○	○	○	●	●	○	○
0500	500mA		190	310	185	1.76		●	○	●	●	○	●	●	●	○	○
0630	630mA		180	360	130	3.40		●	●	●	○	○	●	●	●	○	○
0800	800mA		160	430	120	3.60		●	●	●	○	○	●	●	●	○	○
1100	1.00A		140	500	95	6.80		●	●	●	●	●	●	●	●	○	○
1125	1.25A		130	600	69.8	14.5		●	●	●	●	●	●	●	●	○	○
1160	1.60A		120	730	46.5	22.0		●	●	●	●	●	●	●	●	○	○
1200	2.00A		100	870	34.8	37.0		●	●	●	●	●	●	●	●	○	○
1250	2.50A		100	1000	29.5	56.2		●	●	●	●	●	●	●	●	○	○
1315	3.15A		100	1200	22.0	108		●	●	●	●	●	●	●	●	○	○
1400	4.00A		100	1400	14.6	156		●	●	●	●	●	●	●	●	○	○
1500	5.00A		100	1500	11.5	235		●	●	●	●	●	●	●	●	●	●
1630	6.30A		100	1600	8.80	272		●	●	●	●	●	●	●	●	○	○
1800	8.00A		100	1800	6.00	410		●	○	●	●	○	●	●	●	●	●
2100	10.00A		100	2000	4.60	486		●	○	●	●	●	●	●	●	●	●
2120	12.00A		180	4000	3.50	646		●	○	○	○	○	○	○	○	○	○
2125	12.50A		180	4000	3.60	880		●	○	○	●	○	○	●	○	○	○
2150	15.00A		140	4000	2.70	635		●	○	○	○	○	○	○	○	○	○
2160	16.00A		140	4000	2.60	860		●	○	○	●	○	○	●	○	○	○

注明 Note:

(1) 在 23°C(73.4°F)的环境温度下, 允许的持续工作电流≤100%额定电流。

Permissible continuous operating current is ≤100% at ambient temperature of 23°C (73.4°F).

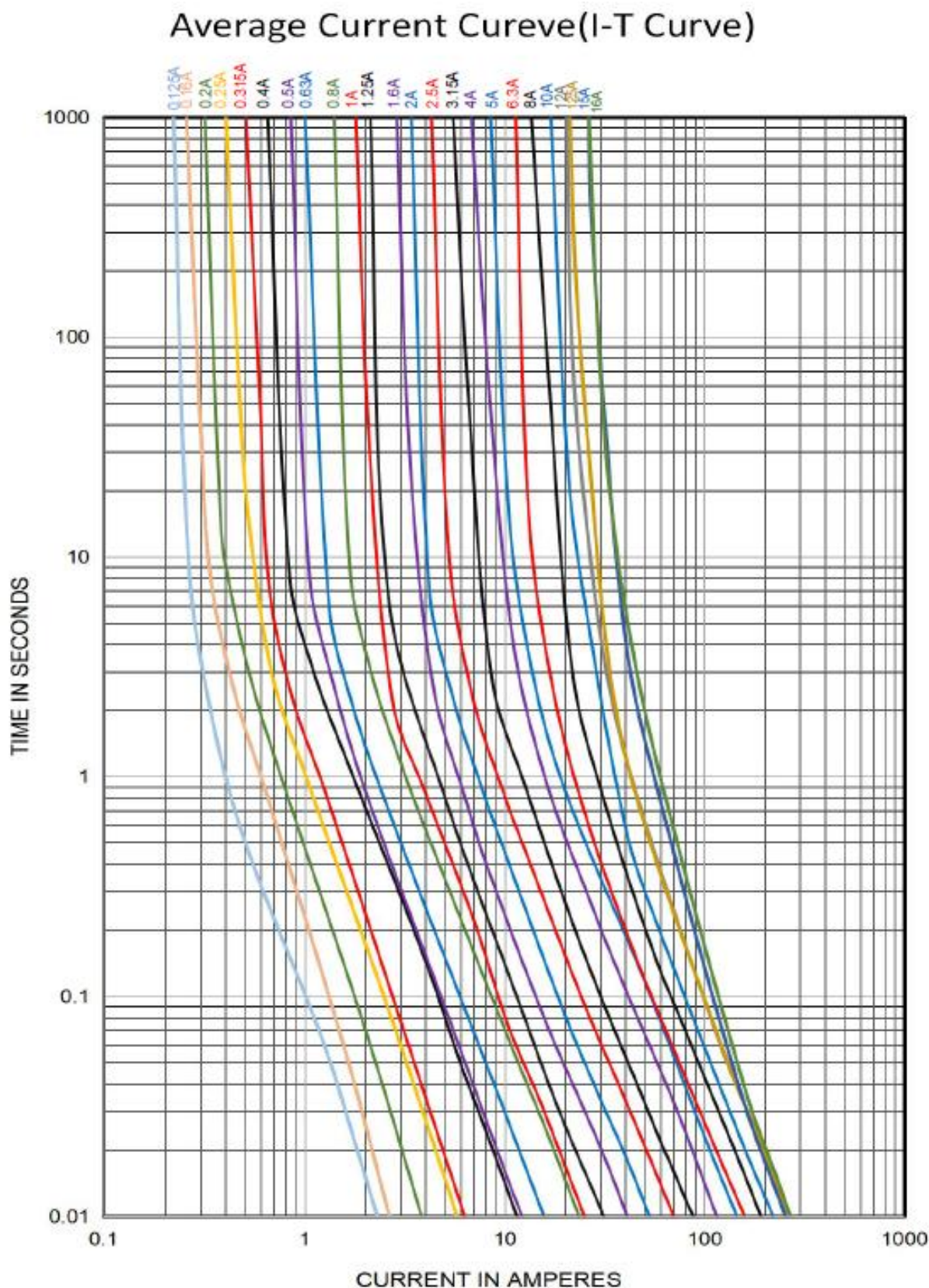
(2) cURus 认证电压为 125V/250V/277V/300V/400V, TUV 认证电压为 250/300V, 500mA~10A 的 CQC 认证电压为 300V, 12.5A, 16A 的 CQC 认证电压为 250V, 其他认证的电压为 250V。

For certification, the cURus by 125V/250V/277V/300V/400V; the TUV by 250/300V; the CQC 500mA~10A by 300V, 12.5A, 16A by 250V; the others by 250V.

(3) I²T 值为熔断时间在 8ms ~ 10ms 电流计算值。The current values used for calculating I²T should be within the standard range of 8ms ~ 10ms.



5.5 熔断曲线图 IT curves

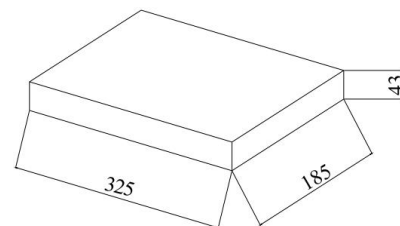
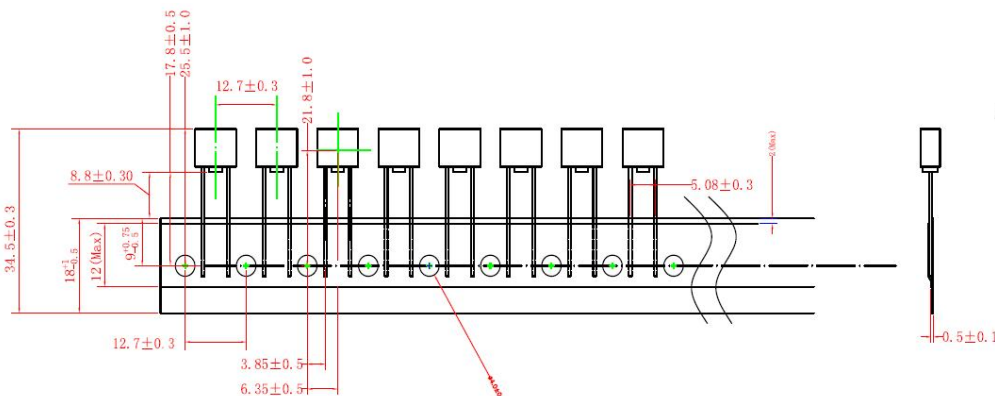




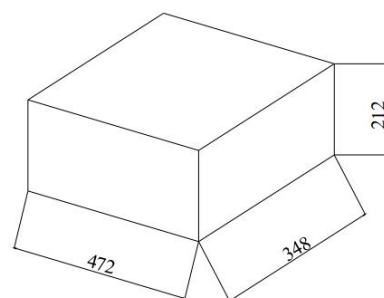
6. 存储及包装信息 Storage and Package Information

6.1 包装方式 Packaging

单位 Unit:mm



内盒(Inner Box)



外箱(Carton)

	盒/Box	箱/Carton		盒/Box	箱/Carton
数量 Qty(pcs)	1000	10000	重量 Weight(kg)	0.54	6.10

6.2 标签: 产品型号、合同号、料号、额定(电压、电流、分断能力)及安规名称、数量。

Label: product model, contract number, part number, rated (voltage, current, BC) and approval certificate name and quantity.

产品系列及规格 Product series and Specs

分断能力 BC

*产品代码 Part NO

*生产日期+生产合同号 Production date+COMM

*入库代码 CODE NO

认证符号 Certification symbol

Better DongGuan Better Electronics Technology Co.,Ltd.
www.betterfuse.com

932 T3.15AL 250V
Sub-miniature Fuse Square, Time-Lag Type

I.R. 35A 250V AC I.R. 160A 250V AC I.R. 100A 400V AC
IEC-60127-3/4 UL 248-14

Part NO: 1234567891

COMM NO: 201204123456789

CODE NO: B1234567890000

MADE IN CHINA

HF RoHS 2.0

20/12/01 Pass

DATE CODE 20 49

10000 pcs

QR Code

CEC, VDE, RoHS, Intertek

*包装数量 Packaging quantity

生产日期 Production date

二维码: 入库代码 QR Code: Code No.

生产日期代码 Date Code

环保符合性说明 Instructions for HSF

* 根据实际情况确定 Confirmed by the actual situation

6.3 存储 Storage

储存温度 Storage temperature: +10℃ to +60℃

相对湿度: ≤ 75% 的年均湿度下

Relative humidity: the annual average humidity is under 75%.

6.4 包装材料均符合 RoHs、HF 和 94/62/EC 的环保要求

All packaging materials meet the environmental requirements of RoHs, HF and 94/62/EC.

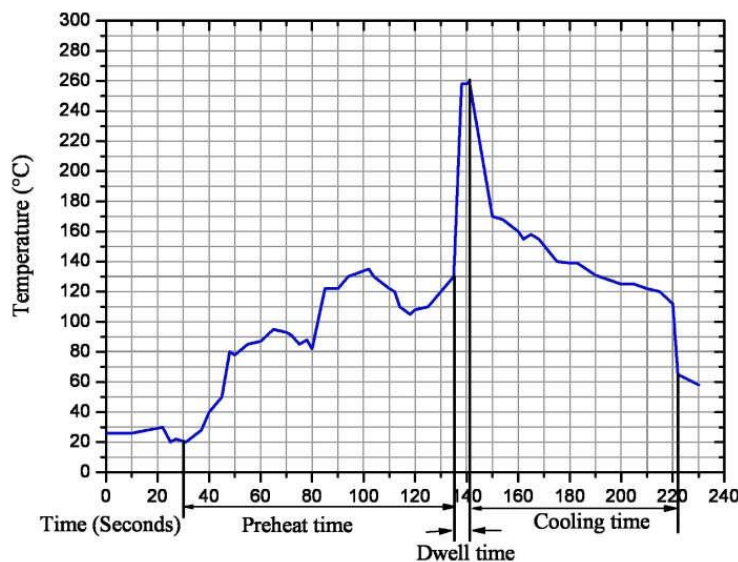


7. 推荐焊接参数 Recommended Soldering Parameters

波峰焊参数 Wave-Soldering Parameter

焊接温度 Solder temperature: $260 \pm 5^{\circ}\text{C}$

焊接时间 Soldering time: $\leq 5\text{s}$



波峰焊温度曲线图 Wave Soldering Temperature Profile

手工焊参数 Hand-Soldering Parameter

烙铁温度 Solder Iron temperature: 350°C

焊接时间 Soldering time: $\leq 3\text{s}$

8. 料号 Part Number

8.1 例如 Example: 9321315278

932	1315	2	78
↓	↓	↓	↓
1	2	3	4

1. 系列品名 Series Model.....932
2. 额定电流 Ampere Rating3.15A (查表 8.2 see table 8.2 below)
3. 额定电压 Voltage Rating.....1: 125V
2: 250V
3: 300V
K:400V
4. 补充码 Supplementary Code.....查表 8.3 see table 8.3 below

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8.2. 额定电流编码表 Rated Current Code table

CODE 编码	RATED CURRENT 额定电流	RATED VOLTAGE 额定电压
0125	125mA	125V/250V/277V/300V/400VAC
0160	160mA	125V/250V/277V/300V/400VAC
0200	200mA	125V/250V/277V/300V/400VAC
0250	250mA	125V/250V/277V/300V/400VAC
0315	315mA	125V/250V/277V/300V/400VAC
0400	400mA	125V/250V/277V/300V/400VAC
0500	500mA	125V/250V/277V/300V/400VAC
0630	630mA	125V/250V/277V/300V/400VAC
0800	800mA	125V/250V/277V/300V/400VAC
1100	1.00A	125V/250V/277V/300V/400VAC
1125	1.25A	125V/250V/277V/300V/400VAC
1160	1.60A	125V/250V/277V/300V/400VAC
1200	2.00A	125V/250V/277V/300V/400VAC
1250	2.50A	125V/250V/277V/300V/400VAC
1315	3.15A	125V/250V/277V/300V/400VAC
1400	4.00A	125V/250V/277V/300V/400VAC
1500	5.00A	125V/250V/277V/300V/400VAC
1630	6.30A	125V/250V/277V/300V/400VAC
1800	8.00A	125V/250V/277V/300V/400VAC
2100	10.00A	125V/250V/277V/300V/400VAC
2120	12.00A	125V/250V/277V/300V/400VAC
2125	12.50A	125V/250V/277V/300V/400VAC
2150	15.00A	125V/250V/277V/300V/400VAC
2160	16.00A	125V/250V/277V/300V/400VAC

8.3. 补充码 Supplementary Code Table

CODE 编码	DESIGNATION 名称
00	Special products 特殊品
01	Taping 编带
02	bulk
03	Lead wire:4.3±0.3 引线, 长: 4.3±0.3
05	Lead wire:3.5±0.5 引线, 长: 3.5±0.5
06	Lead wire:4±0.5 引线, 长: 4±0.5
.....	
78	Taping 编带



9. 订单信息 Ordering Information

The following information is necessary in order to place your order with us correctly:

为了确保订单内容准确请核对以下信息

系列 Series	料号 Part NO.	补充码 Supplementary Code	Quantity 数量 (pcs)
932			