承　　认　　书
APPROVAL　SHEET

编　号 No.	243212020000-A/0-B
日期 Date	2020.10.15

客　　户 Customer	

品　　名 Product	**2410 Size Brick Fuse**
系　　列 Series	**243 series**

料号 Part No.		规格描述 Specification	备注 Remark
贝特电子 Betterfuse			
客　　户 Customer			

环保特别提示 Special instructions for environmental protection
本产品：

供应商-贝特电子 Supplier-Betterfuse		零件承认章 Approval Signet	客　　户 Customer	零件承认章 Approval Signet
制　作 Make	YaLan Wang			
审　核 Check	Zhiwei Wen			
确　认 Approval	Weirong Xiang			

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，或将承认后的封面传真（0769-8352 1857）至我司，谢谢！			

Document Record						
No.	Date	Modified Content	Page	Edition	Prepared/modified by	Checked by
1	2020.10.15	Draft		A/0	YaLan Wang	Fei Gao

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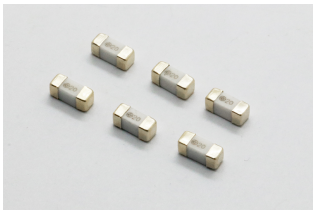
1. SCOPE AND DESCRIPTION



Following electronic product specifications apply to fuses of the 243 series. The 243 series is a fast-acting type brick fuse for over-current protection.
As the fast-acting characteristics these fuses can resist inrush current. And widely used in notebook PC, telecom system, LCD/PDP TV, wireless goods, LCD monitor, white goods, LCD/PDP panel, game console, power supply, net working and other electronics products.

2. GENERAL INFORMATION

General Description

243 brick fuse for the small size and good electrical performance, reliability and quality. The solder-free design provides excellent on-off and temperature cycling characteristics during use and also makes our brick fuses more heat and shock tolerant than typical subminiature fuses.

Detailed Features

- Rapid interruption of excessive current
- Compatible with reflow and wave soldering
- Ceramic body and Gold plated copper terminal
- Excellent environmental integrity
- One time positive disconnect
- Lead-free, Halogen-free, RoHS compliant
- Designed to UL 248-14
- Compliant to Better's environment standard of <Technical Standard of Environmental management substances>

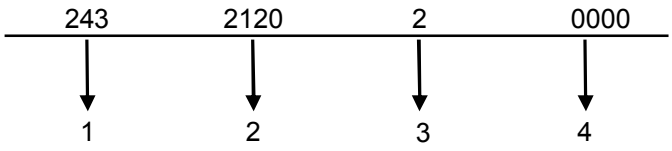
3. AGENCY APPROVALS

Agency	Agency File Number	Ampere/ Voltage Range
c UL us	E497847	125V/250V AC:100mA~12A 86V/100V/125V DC:100mA~40A

4. PART NUMBERING SYSTEM

4.1 Part Number

Example: 243212020000



1.Product Series……..... 243
2.Ampere Rating……..... 12A (see table 4.3 below)
3.Voltage Rating……..... 250VAC 125VDC
4.Supplementary Code…… 0000(See table 4.2 below)

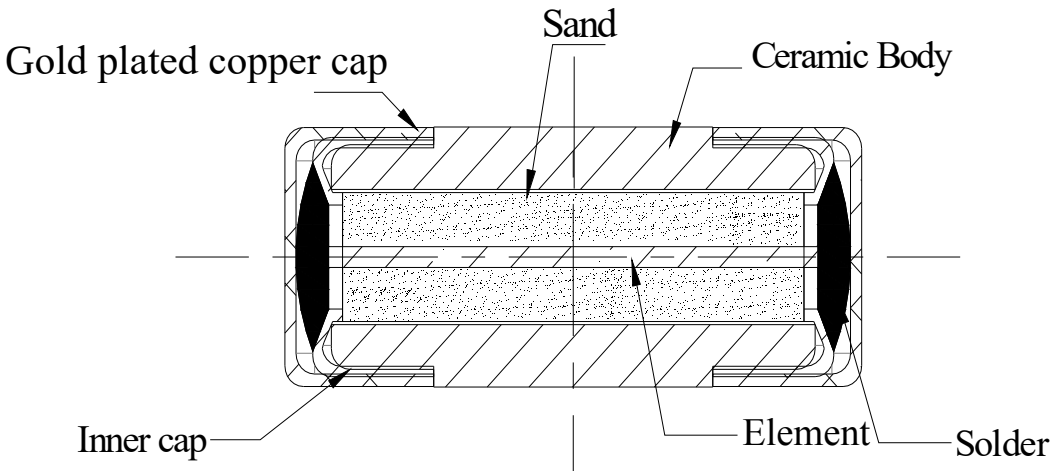
4.2 Supplementary Code Table

CODE	DESIGNATION
0000	Standard product

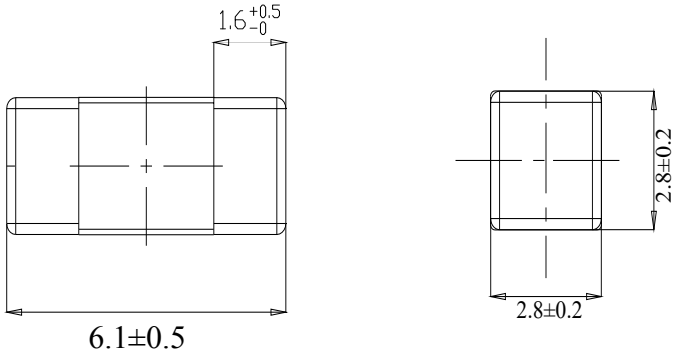
4.3. Ampere / Voltage Rating Table

AMP CODE	AMPERE RATING	VOLTAGE RATING
0160	160mA	86/100/125V DC 125/250 AC
1100	1.00A	86/100/125V DC 125/250 AC
1200	2.00A	86/100/125V DC 125/250 AC
1300	3.00A	86/100/125V DC 125/250 AC
1400	4.00A	86/100/125V DC 125/250 AC
1500	5.00A	86/100/125V DC 125/250 AC
1630	6.30A	86/100/125V DC 125/250 AC
1800	8.00A	86/100/125V DC 125/250 AC
2100	10.0A	86/100/125V DC 125/250 AC
2120	12.0A	86/100/125V DC 125/250 AC
2150	15.0A	86/100/125V DC
2200	20.0A	86/100/125V DC
2250	25.0A	86/100/125V DC
2300	30.0A	86/100/125V DC
2400	40.0A	86/100/125V DC

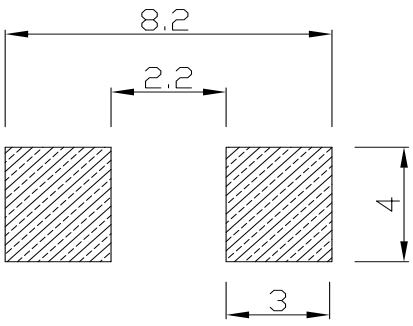
5. MECHANICAL SPECIFICATIONS



Dimensions (unit: mm)



Recommended land pattern



Operating Temperature:

-55°C to +125°C

Storage Conditions:

+10℃ to +60℃

Relative humidity: ≤ 75% yearly average

without dew, maximum 30 days at 95%

Vibration Resistance:

24 cycles at 15 min. each (60068-6)

10-60Hz at 0.75mm amplitude

60-2000Hz at 10g acceleration

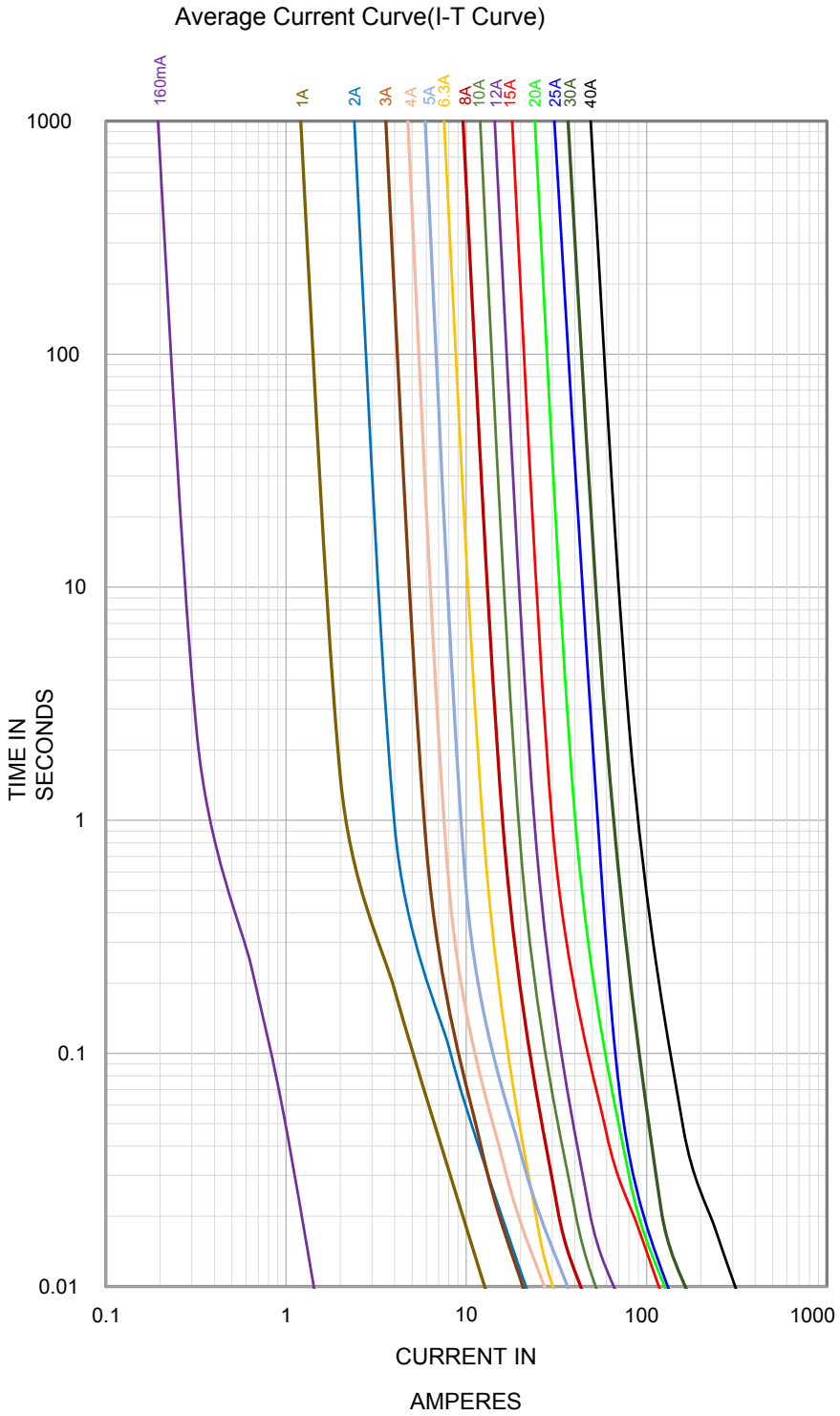
6. ELECTRICAL SPECIFICATIONS

Time vs Current Characteristics Table

(measured with constant current power supply)

Time vs Current Characteristics: UL248-14		
Rated current	100%	200%
100mA~40A	>4h	<5s

Average Time Current (I-T) Curves

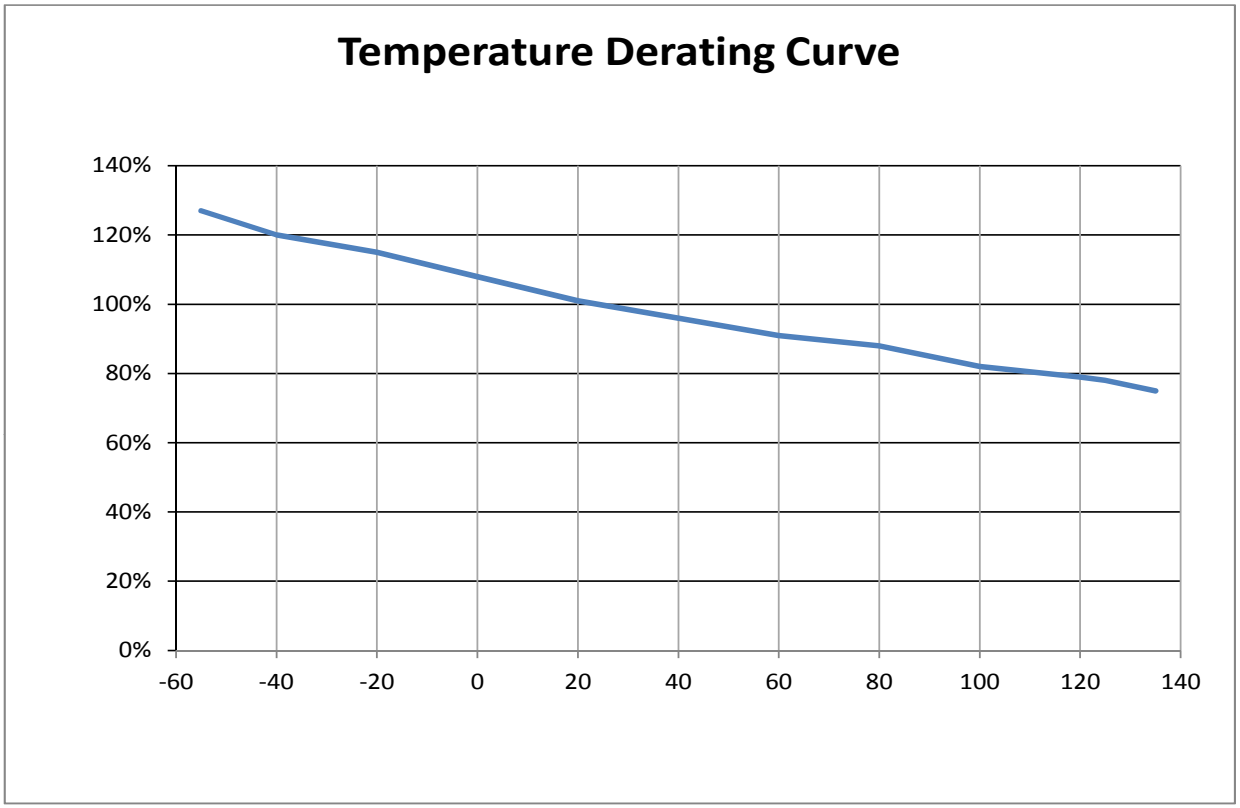


Electrical characteristics

Electrial Characteristics at 25℃							
Amp Code	Rated Current	Rated Voltage	Typical Voltage Drop Max(mV)	Breaking Capacity	Typical Melting I2T(A2s)	Typical Cold Resistance (mΩ)	Approvals cURus
0160	160mA	86/100/125V DC 125/250V AC	800	50A@250VAC 300A@125VDC	0.015	2254.0	●
1100	1.00A		200		1.8	97.1	●
1200	2.00A		150		4.7	37.0	●
1300	3.00A		150		3.7	22.1	●
1400	4.00A		150		6.1	16.25	●
1500	5.00A		150		11.9	13.79	●
1630	6.30A		100		8.3	9.19	●
1800	8.00A		100		16.2	6.88	●
2100	10.0A		100		23.3	5.57	●
2120	12.0A		100		39.3	4.52	●
2150	15.0A	86/100/125V DC	100	10KA@86VDC 300A@125VDC	130.5	3.86	●
2200	20.0A		100		140.0	2.53	●
2250	25.0A		100	300A@125VDC 500A@86VDC/100VDC	170.6	2.10	●
2300	30.0A		100		270.0	1.65	●
2400	40.0A		100		912.0	1.05	●

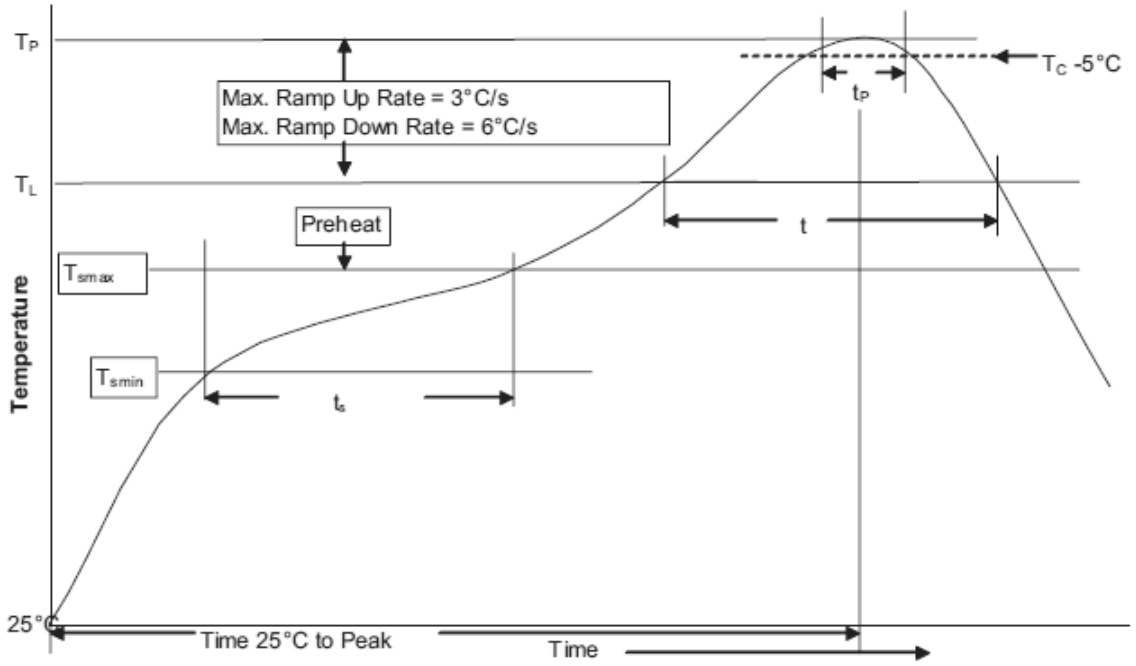
Note: (1) Permissible continuous operating current is ≤100% at ambient temperature of 23° C (73.4° F)
(2) The current values used for calculating I2T should be within the standard 10In.

Temperature Derating Curve



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

7. SOLDERING PARAMETERS



1.Infrared Reflow:

Temperature:260℃

Time:30sec Max.

Recommend reflow profile

2.Wave Soldering

Reservoir Temperature:260℃

Time in Reservoir:10sec Max.

Profile Feature		Lead (Pb)free solder
Average Ramp-UP Rate（Tsmax to Tp)		3℃/s Max.
Preheat and soak	Temperature min.(Tsmin)	150℃
	Temperature max.(Tsmax)	200℃
	Time (Tsmin to Tsmax)(ts)	60~120s
Liquidous temperature(TL) Time at liquidous(tL)		217℃ 60~150S
Peak package body temperature(Tp)		260℃
Time (tP) within 5℃ of the specified classification temperature (Tc)		30S
Average ramp-down rate (Tp to Tsmax)		6℃/s Max.
Time (25℃ to Peak Temperature)		8 Minutes Max.

8. ORDERING INFORMATION

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

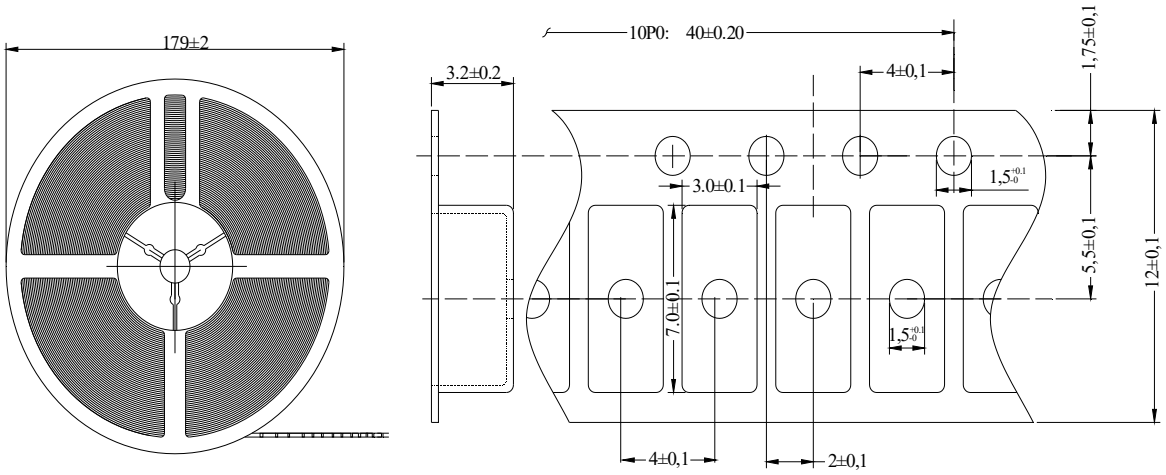
Series	Amp code	Supplementary Code	Qty
243			

PACKING INFORMATION

Taping detail

Unit:mm

Packing



Quantity per reel	1000pcs	Weight per reel	234.5g

东莞市贝特电子科技股份有限公司
Room 601 of 16 Block, Xinzhuyuan, No.4，Xinzhu Road, Songshanlake Hightech Industrial Development Zone, Dongguan City, Guangdong P.R.C
中国广东省东莞市松山湖国家高新技术产业开发区新竹路 4 号新竹苑 16 座办公 601

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Web: **www.betterfuse.com** Email: info@betterfuse.com

10. APPENDIX

UL Product iQ™

JFHR8.E497847 - Special-purpose Fuses Certified for Canada - Component

Special-purpose Fuses Certified for Canada - Component

See General Information for Special-purpose Fuses Certified for Canada - Component

DONGGUAN BETTER ELECTRONICS TECHNOLOGY CO LTD E497847
Rm 601 Of 16 Blk
Xinzhuyuan No 4 Xinzhu Rd
Songshanlake Hightech Industrial Development Zone
Dongguan, Guangdong 523808 CHINA
Special Purpose Fuse, Model(s) 243, 240, 254 or 255 (Same product different Cat. Nos.).

Special Purpose Fuse, Model(s) 487 followed by 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 90

Special Purpose Fuse, Model(s) 487 followed by 80, 100

Special Purpose Fuse, Model(s) 491 or 492 (Same product different Cat. Nos.) followed by 20, 30, 40, 50, 60, 70, 80, 90, 100 or 125.

Special Purpose Fuse, Model(s) 493 or 494 (Same product different Cat. Nos.) followed by 20, 30, 40, 50, 60, 70, 80, 90, 100 or 125.

Special Purpose Fuse, Model(s) 671 (b)

Special Purpose Fuse, Model(s) FS08H, followed by 050, 100, 150, 200, 250, 315, 350 or 400, followed by blank or F

(b) - followed by ampere 0.1-63 and may followed by suffix P, BT or Blank.

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

Last Updated on 2020-07-09

JFHR2.E497847 - Special-purpose Fuses - Component

Special-purpose Fuses - Component

See General Information for Special-purpose Fuses - Component

DONGGUAN BETTER ELECTRONICS TECHNOLOGY CO LTD E497847
Rm 601 Of 16 Blk
Xinzhuyuan No 4 Xinzhu Rd
Songshanlake Hightech Industrial Development Zone
Dongguan, Guangdong 523808 CHINA
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Last Updated on 2020-07-09