

# Engineering Product Specifications

## (产品承认书)

**Customer Name (客户):** \_\_\_\_\_

**Customer NO. (客户料号):** \_\_\_\_\_

**Model No. (产品型号):** \_\_\_\_\_

**Product Description (品名):** Quick-Acting Miniature Fuse

**Part NO. (产品编号):** 615 series

**Remark:** \_\_\_\_\_

Document Release		Date(日期)
Prepared by (制表)		
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Approved by (批准)		

Customer Approval		Date(日期)
Signed by (承认)		
Checked by (审核)		
Approved by (批准)		

**DongGuan Better Electronics Technology Co., Ltd**

东莞市贝特电子科技股份有限公司

Room 601 of 16 Block, Xinzhu Yuan, 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

Tel: +86 769-2307 8212 Fax: +86 769-8352 1857

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### 1. SCOPE AND DESCRIPTION



Following electronic product specifications apply to fuses of the 615 series. The 615 series is a time lag type miniature fuse for over-current protection.

Its main applications are for electronics that need high interrupting rating and high voltage rating, such as telecom equipment.

### 2. GENERAL INFORMATION


#### General Description

The 615 series provides protection for printed circuit boards used in a large variety of applications that need fuses with quick-acting, high interrupting rating and voltage rating characteristics. This miniature device is constructed of a ceramic tube and base with copper caps (tin plated copper lead wire optional). It offers excellent mounting characteristics and is 100% tested for cold resistance.

#### Detailed Features

- Miniature fuse with time delay, high interrupting and high voltage ratings.
- Small size, tubular design
- Copper caps / ceramic fuse body.
- 0.8mm lead wires made of tin plated copper.
- Protection against harmful over-currents in primary and secondary applications.
- Lead-free, Halogen-free, RoHS compliant
- Designed according to UL-248-14

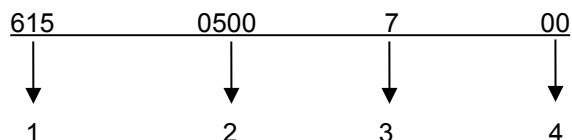
### 3. AGENCY APPROVALS

Agency	Agency File Number	Ampere/ Voltage Range
	E300003	660V AC/1000V AC: 500mA~3A, 4A~10A;

## 4. PART NUMBERING SYSTEM

### 4.1 Part Number

Example: 6150500700



1 .....	Product Series .....	615
2 .....	Ampere Rating/ Code .....	500mA (see table 4.3 below)
3 .....	Voltage Rating .....	6 – 660V 7 – 1000V
4 .....	Packaging Code .....	(see table 4.2 below)

### 4.2 Packaging Code Table

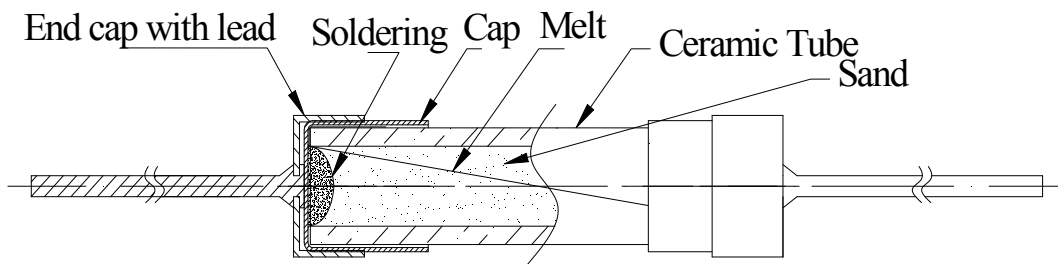
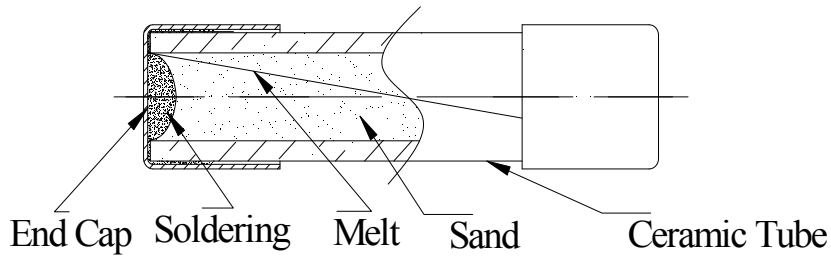
CODE	DESIGNATION
<b>00</b>	Without leads
<b>01</b>	Axial leads: 38mm
<b>02</b>	Axial leads: 50mm
<b>03</b>	Custom made

### 4.3. Ampere Rating Table

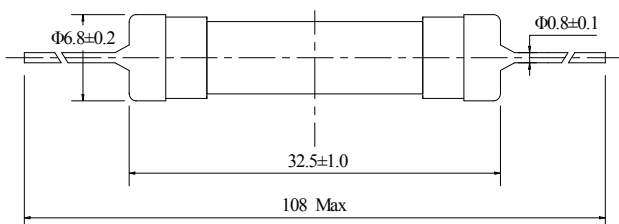
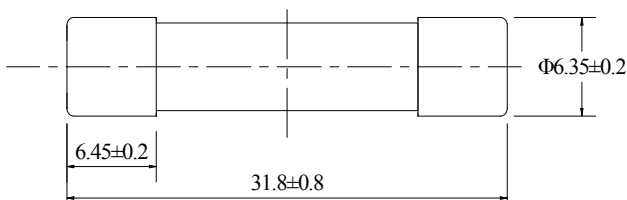
AMP CODE	CURRENT RATING	VOLTAGE RATING
<b>0500</b>	500mA	660VAC/1000VAC
<b>0630</b>	630mA	660VAC/1000VAC
<b>0800</b>	800mA	660VAC/1000VAC
<b>1100</b>	1.00A	660VAC/1000VAC
<b>1125</b>	1.25A	660VAC/1000VAC
<b>1150</b>	1.50A	660VAC/1000VAC
<b>1160</b>	1.60A	660VAC/1000VAC
<b>1200</b>	2.00A	660VAC/1000VAC
<b>1250</b>	2.50A	660VAC/1000VAC
<b>1300</b>	3.00A	660VAC/1000VAC
<b>1315</b>	3.15A	660VAC/1000VAC
<b>1350</b>	3.50A	660VAC/1000VAC
<b>1400</b>	4.00A	660VAC/1000VAC
<b>1500</b>	5.00A	660VAC/1000VAC
<b>1600</b>	6.00A	660VAC/1000VAC
<b>1700</b>	7.00A	660VAC/1000VAC
<b>1800</b>	8.00A	660VAC/1000VAC
<b>2100</b>	10.00A	660VAC/1000VAC

**5. CONSTRUCTION AND MECHANICAL CHARACTERISTICS**

**Construction** (cross section)



**Dimensions** (units: mm)



**Operating Temperature:**

-55°C to 125°C

**Storage Conditions:**

+10°C to +60°C

Relative humidity:  $\leq 75\%$  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

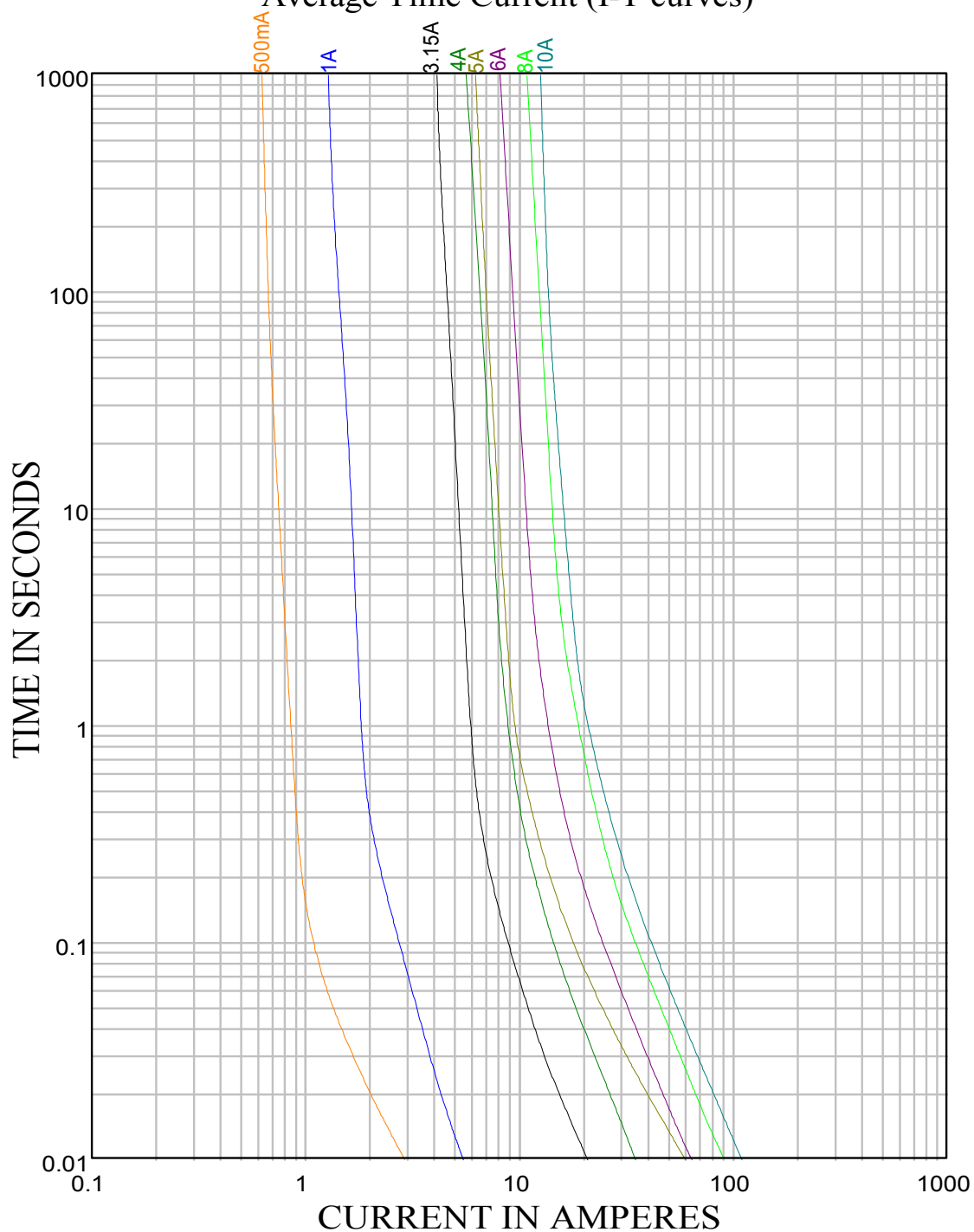
## 6. ELECTRICAL SPECIFICATIONS

### Time vs Current Characteristics Table

(measured with constant current power supply) (according to UL-248-14)

Rated Current	100%	135%	200%
500mA ~10A	>4h	<1h	<10s

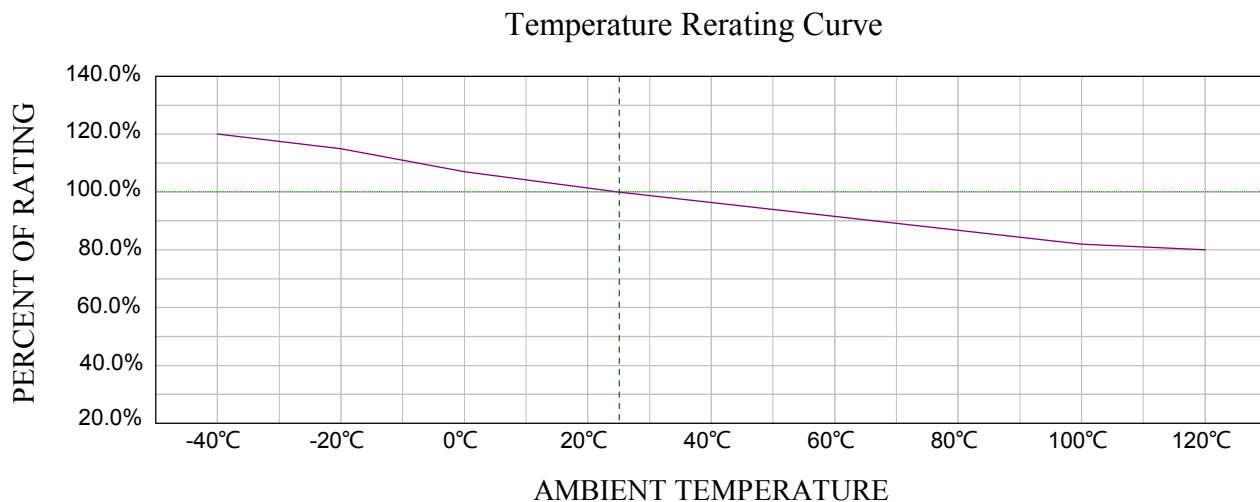
Average Time Current (I-T curves)



## Electrical characteristics

Electrical Characteristics					
Amp Code	Rated Current	Nominal Melting $I^2t(A^2sec)$	Breaking Capacity	Approvals	
				cURus	
				660V	1000V
0500	500mA	0.084	100A/1000V AC  300A/660V AC  50-60Hz  Cosφ=0.7-0.8	●	●
0630	630mA	0.133		●	●
0800	800mA	0.172		●	●
1100	1.00A	0.297		●	●
1125	1.25A	0.456		●	●
1150	1.50A	0.672		●	●
1160	1.60A	0.74		●	●
1200	2.00A	1.44		●	●
1250	2.50A	2.4		●	●
1300	3.00A	3.53		●	●
1315	3.15A	4.33		○	○
1350	3.50A	4.57		○	○
1400	4.00A	12.25		●	●
1500	5.00A	36		●	●
1600	6.00A	40.96		●	●
1700	7.00A	61.46		●	●
1800	8.00A	81		●	●
2100	10.00A	121	●	●	

## Temperature Derating Curve



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

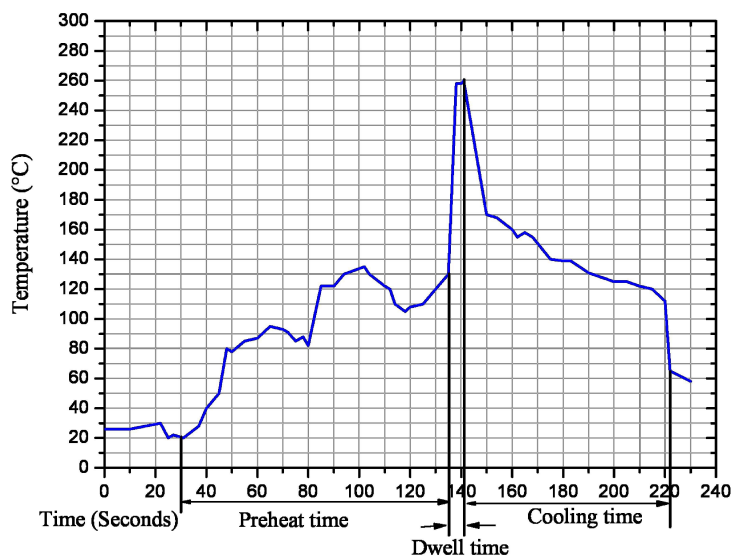
## 7. SOLDERING PARAMETERS

260°C .≤5 sec (Wave Soldering)

350°C .≤3 sec (Hand Soldering)

Soldering Peak:

260°C - 10 sec (IEC 60068-20)



## 8. ORDERING INFORMATION

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

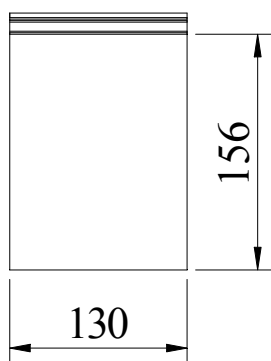
Series No.	Amp Code	Packaging Code	Quantity	Purchase Order No.
615				



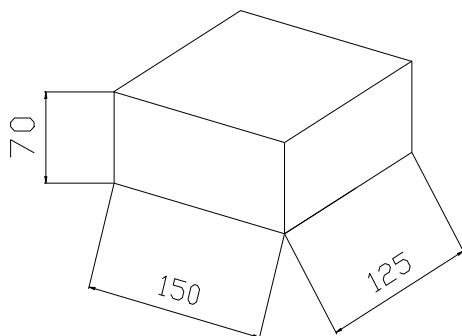
## 9. PACKING INFORMATION

### Packing details

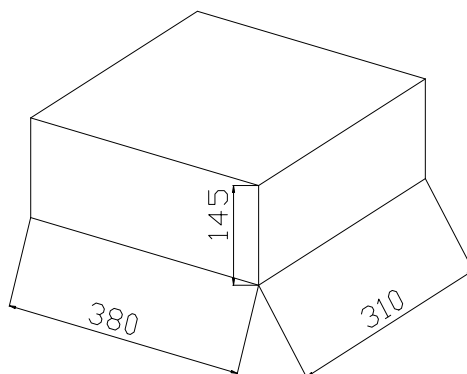
Plastic Bag



Inner Packaging Box



Master Carton



Net weight per bag	264g	Gross weight 400pcs per box	1.43Kg	Gross weight 4000pcs per carton	14.6Kg
Qty per bag	100pcs	Qty per box	500pcs	Qty per carton	5000pcs

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东莞市贝特电子科技股份有限公司

Room 601 of 16 Block, Xinzhu Yuan, 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

Tel: +86 769-2307 8212 Fax: +86 769-8352 1857

Web: [www.betterfuse.com](http://www.betterfuse.com)

Email: [info@betterfuse.com](mailto:info@betterfuse.com)

## 10. APPENDIX



ONLINE CERTIFICATIONS DIRECTORY

### JDYX2.E300003 Fuses, Supplemental - Component

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### Fuses, Supplemental - Component

[See General Information for Fuses, Supplemental - Component](#)

**DONGGUAN BETTER ELECTRONICS TECHNOLOGY CO LTD**  
RM 601 OF 16 BLK  
XINZHUYUAN NO 4 XINZHU RD  
SONGSHANLAKE HIGHTECH INDUSTRIAL DEVELOPMENT ZONE  
DONGGUAN, GUANGDONG 523808 CHINA

E300003

**Supplemental fuses: filled-tube, cartridge enclosed**

Cat. No.	Size mm(in)	Amps (A)	Volts (V)	Interrupting Rating (A)
<b>615</b>	6.35 x 31.8 (0.25 x 1.25)	0.5 - 3	660Vac	300
		0.5 - 3	1000Vac	100
		4 - 10	660Vac	300
		4 - 10	1000Vac	100

Marking: Company name and model designation.

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