# Time-lag glass tube fuses 5x20mm

1. This specification defines the technical requirements of miniature slow-blow fuses which are approved by UR, CCC, CQC, VDE, PSE and KC (RoHS&pbFree).

PART NUMBER	RATED CURRENT	RATED VOLTAGE
Bsz100	100mA	250V
Bsz125	125mA	250V
Bsz160	160mA	250V
Bsz200	200mA	250V
Bsz250	250mA	250V
Bsz315	315mA	250V
Bsz400	400mA	250V
Bsz500	500mA	250V
Bsz630	630mA	250V
Bsz800	800mA	250V
BszA01.00	1A	250V
BszA01.25	1.25A	250V
BszA01.60	1.6A	250V

PART NUMBER	RATED CURRENT	RATED VOLTAGE
BszA02.00	2A	250V
BszA02.50	2.5A	250V
BszA03.00	3A	250V
BszA03.15	3.15A	250V
BszA04.00	4A	250V
BszA05.00	5A	250V
BszA06.30	6.3A	250V
BszA08.00	8A	250V
BszA10.00	10A	250V
BszA12.50	12.5A	250V
BszA15.00	15A	250V
BszA16.00	16A	250V
BszA20.00	20A	250V

### 2. APPLICABLE STANDARDS

2.1 Applicable standards for IEC60127.1, IEC60127.2, GB9364.1, GB9364.2.

2.2 APPROVED DETAILS

c <del>Al</del> us	E324232	100mA-10A /12A-20A	
	2008010207315685	500mA/630mA/1A/1.6A/2A/2.5A/3.15A/4A/5A/6.3A	
	CQC10012047312	8A/10A/12.5A/16A	
DE	40026754	500mA/630mA/1A/1.6A/2A/2.5A/3.15A/4A/5A/6.3A /8A/10A	
PS	JET6223-31003-2001	003-2001 1A-5A	
JET	JET6223-31003-2004	6.3A-15A	
G	SU05032-13004 500mA/630mA		
	SU05032-13001 1A/1.6A/2A/2.5A		
	SU05032-13002	3.15A/4A/5A/6.3A	
	SU05032-13003	8A/10A	

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### 3.1 GLASS TUBE

Tube shall be transparent as to be easily distinguished fusing element with naked eyes and the tube shall have no defects such as crack, injury and contamination.

### 3.2 CAP

Cap should be firmly attached so that it is not possible to remove them without damaging the fuse itself. The samples are immersed in water for 24 hours at a temperature between 15°C and 35°C. After remove from the water, an axial pull steadily increasing to 5N is applied to each cap for 1 minute.

### 3.3 SOLDERING JOINT

Soldering joint in end cap shall not be melted during normal operation and shall not have solder chips on tube, element in view and outer surface of caps.

### 4. MECHANICAL PERFORMANCES

Fuse shall withstand following three testing.

### 4.1 ROTATIONAL STRENGTH

When one end cap of the specimen is fixed and then the torque 10N·mm is applied to the other end cap clockwise and counterclockwise, no looseness of end caps at both ends or damage of fuse-tube shall occur.

### **4.2 TENSILE STRENGTH**

When one end cap of the specimen is fixed and then the tensile force 10N is applied to the other end cap in a direction to separate the end caps, no looseness of end caps or damage of fuse-tube shall occur.

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## 4.3 STRENGTH OF FUSE-TUBE

When middle parts of end caps at both ends of the specimen are supported and then the force 15N is applied to the middle part of the fuse-tube, no damage of the fuse-tube shall occur.

### 5. ELECTRICAL PERFORMANCES

### 5.1 VOLTAGE DROP

The voltage drop across the fuse-link at their rated current shall not exceed the maximum values is in follows:

Rated Current (A)	Rated Voltage (V)	Maximum Voltage drop (mV)	Maximum sustained Power dissipation (W)	I <sup>2</sup> T Reference (A <sup>2</sup> Sec)
100mA		2,500		0.025
125mA		2,000		0.037
160mA	-	1,900		0.078
200mA		1,500		0.080
250mA		1,300		0.112
315mA		1,100		0.261
400mA		1,000		0.384
500mA		900		0.609
630mA		300		0.959
800mA		250	1.6	2.085
1A		150		4.163
1.25A		150		8.262
1.6A	250V	150		13.07
2A		150		14.87
2.5A		120		20.25
ЗA		100		21.39
3.15A		100		47.39
4A		100		67.50
5A		100		90.49
6.3A		100		221.6
8A		100	4.0	410.6
10A		100	4.0	688.5
12.5A		80		729
15A		80	6.0	1625
16A		80	0.0	2015
20A		80		3100

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5.2	5.2 PRE-ARCING TIME-CURRENT CHARACTERISTICS							
	Rated Current	2.11 <sub>n</sub>	2.75I <sub>n</sub>		4I <sub>n</sub>		10I <sub>n</sub>	
		Max.	Min.	Max.	Min.	Max.	Min.	Max.
	32 mA -100mA	2min.	200ms	10sec.	40ms	3sec.	10ms	300ms
	125mA-10A	2min.	600ms	10sec.	150ms	3sec.	20ms	300ms
	>10A	5min	600ms	15sec.	150ms	5sec.	20ms	400ms

## 5.3 INTERRUPTING CAPACITY

Rated breaking capacity is In≤16A :35A or  $10I_n$  whichever is greater, tested with A.C., In>16A-20A: 100A (A.C.).

### 5.4 ENDURANCE TEST

The process of endurance test is as follows:

A. current 1.2I<sub>n</sub> is passed through the fuse-link for a period of 1hour. The current is then switched off for a period of 15 minutes. The cycle is repeated 100 times.

B. current  $1.5I_n$  is then passed through the fuse-link for 1hour.

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

5.5 COLD RESISTANCE TEST

Input 10% of fuse rated current to fuse for cold resistance test at surrounding temperature of 25±2°C.

### 6. MARKING

6.1 The relevant markings shall be marked on the caps of the fuse and shall be easily visible.

### 7. ENVIRONMENTAL PARAMETERS

7.1 Operating Temperature: -55°C~125°C.

7.2 Under airtight in temperature +10~60°C relative humidity  $\leq$ 75% can store 3 years.

Without dew in temperature +10~60°C relative humidity be 95% maximum value for 30 days.