1. SCOPE

This specification defines the technical requirements of micro fuse (slow blowing/time lag) which withstand explosion-proof(special requirements), which are approved by UL, CCC,CQC, VDE,PSE and KC（RoHS）.

PART NUMBER

PART NUMBER	RATED CURRENT	RATED VOLTAGE	PART NUMBER	RATED CURREN	RATED VOLTAGE
Bcz100-4x11 ax	100mA	125V/250V/ 300V/350V	BczA02.00-4x11 ax	2A	125V/250V/ 300V/350V
Bcz125-4x11 ax	125mA		BczA02.50-4x11 ax	2.5A	
Bcz160-4x11 ax	160mA		BczA03.00-4x11 ax	3A	
Bcz200-4x11 ax	200mA		BczA03.15-4x11 ax	3.15A	
Bcz250-4x11 ax	250mA		BczA03.50-4x11 ax	3.5A	
Bcz315-4x11 ax	315mA		BczA04.00-4x11 ax	4A	
Bcz400-4x11 ax	400mA		BczA05.00-4x11 ax	5A	
Bcz500-4x11 ax	500mA		BczA06.30-4x11 ax	6.3A	
Bcz630-4x11 ax	630mA		BczA07.00-4x11 ax	7A	
Bcz800-4x11 ax	800mA		BczA08.00-4x11 ax	8A	
BczA01.00-4x11 ax	1A		BczA10.00-4x11 ax	10A	
BczA01.25-4x11 ax	1.25A		BczA12.50-4x11 ax	12.5A	
BczA01.60-4x11 ax	1.6A		BczA15.00-4x11 ax	15A	

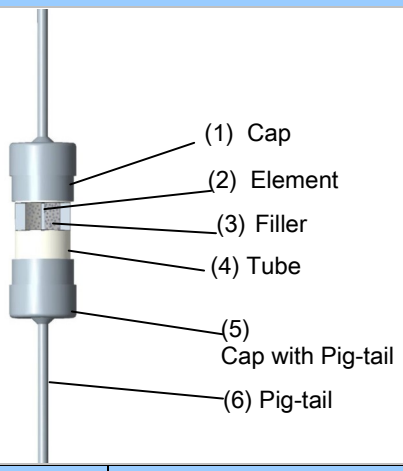
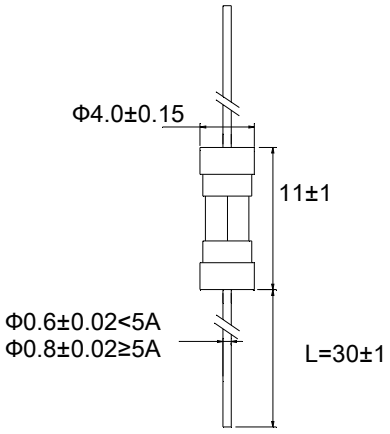
2. APPLICABLE STANDARDS

2.1 Applicable standards for UL248-1, UL248-14, IEC60127.1, IEC60127.3, GB/T9364.1, GB/T9364.3.

2.2 APPROVED DETAILS

c(UL)us	E324232	100mA-15A	125V/250V 300V/350V
VDE	40033206	100mA /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
CCC	2020980207000034	100mA /125mA160mA/200mA/250mA/315mA /400mA/500mA/630mA/800mA/1A/1.25A/1.6A/2 A/2.5A/3.15A/4A/5A/6.3A/8A/10A	
KC	SU05032-23003	1.25A	
	SU05032-23004	10A	
	SU05032- 23005	100mA	
	SU05032-23006	125mA/160mA/200mA/250mA/315mA/400mA/ 500mA/630mA800mA	
	SU05032-13007A	1A/1.6A/2A/2.5A	
	SU05032-13008A	3.15A/4A/5A/6.3A	
	SU05032-13009A	8A	
JET	JET6223-31007-1006	1A/1.25A/1.6A/2A/2.5A/3.15A/4A/5A	

3.STRUCTURE AND DIMENSION

A：STRUCTURE	B： DIMENSION（mm）
	

No.	PART	MATERIAL
1	Cap	Nickel Plated Brass
2	Element	Metal Wire
3	Filler	Quartz sand
4	Tube	Ceramic Tube
5	Cap with Pig-tail	Nickel Plated Brass
6	Pig-tail	Tin Plated copper

3.1 Ceramic TUBE

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℃ and 35℃. 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.

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

5.1Test conditions

1) All electrical tests are conducted at a ambient temperature of 24±3℃. The ambient temperature is not allowed to vary more than 5℃ during the test, and must be within these limits.

2) Each fuse-holder is to be mounted horizontally on a test board of non-conducting bakelite, so that each fuse under test is held in a horizontal position above the board.

5.2 Endurance test

The process of endurance test is as follows:

A. current $1.0I_n$ 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.

5.3 INTERRUPTING CAPACITY

there should be no damage of the fuse-tube or shattering of the caps.

Safety Certification	Breaking capacity
VDE	35 amperes or 10×rated current;whichever is greater at 250V AC.
CCC	
KC	
PSE	100 amperes at 250V AC.
UL	50 amperes at 125V AC.
	50 amperes at 250V AC.
	50 amperes at 300V AC.
	50 amperes at 350V AC.

5.4 I2T Reference

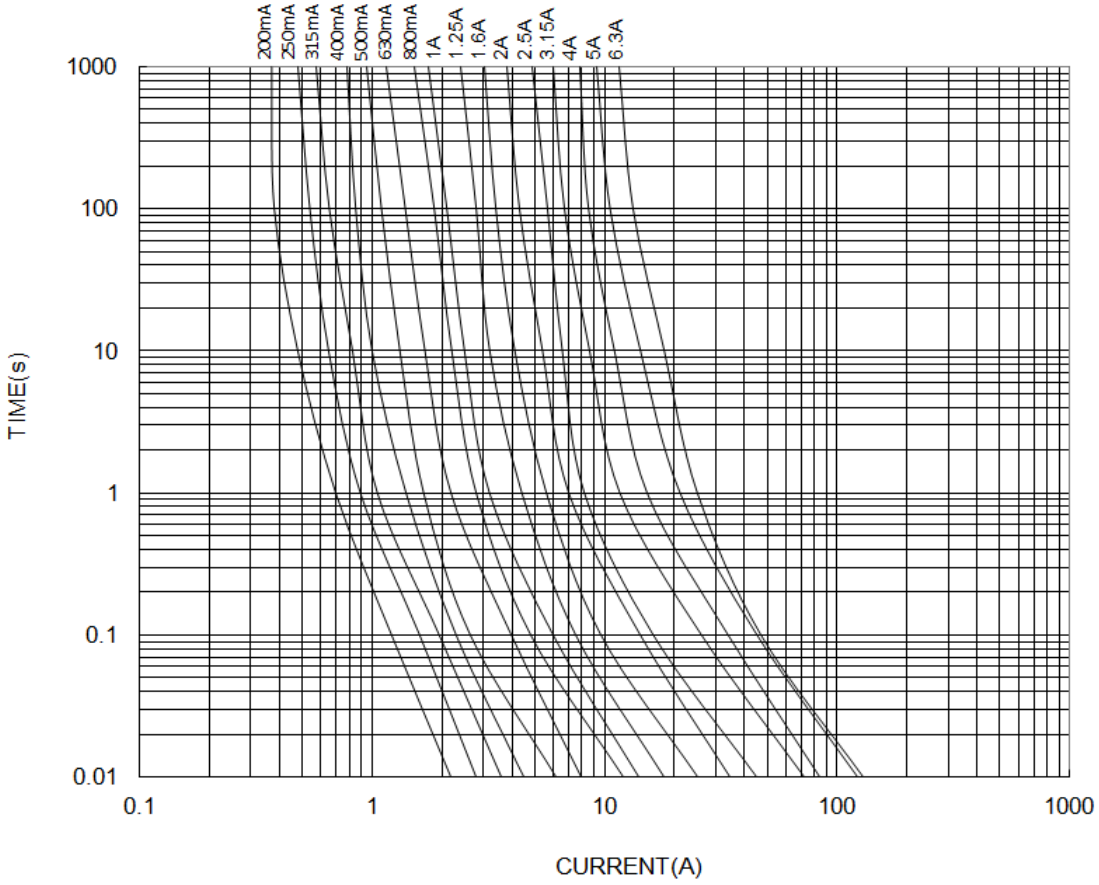
Rated current(A)	Rated Voltage(V)	I2T Reference (A^2Sec)		Rated current(A)	Rated Voltage(V)	I2T Reference (A^2Sec) ± 20%
200mA	250V/ 300V/ 350V	0.048		5A	250V/ 300V/ 350V	67.24
250mA		0.078		6.3A		90
315mA		0.13		8A		121
400mA		0.20		10A		169
500mA		0.38		12.5A		272
630mA		0.64		15A		392
800mA		1.44		/	/	/
1A		1.96				
1.25A		3.24				
1.6A		6.25				
2A		11.9				
2.5A		20.25				
3.15A		51.84				
4A		71.4				
5A		148				
6.3A		169				

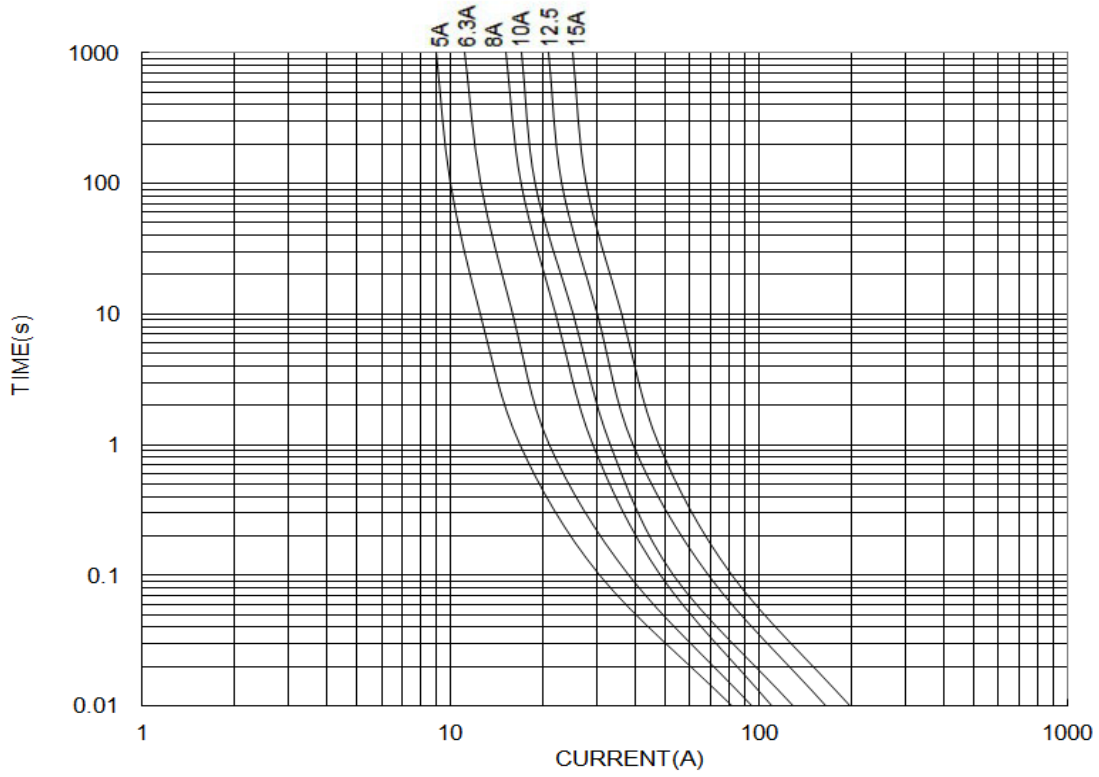
Note:I ^{2}T values stated for 8ms--10 ms opening time.

5.5 PRE-ARCING TIME-CURRENT CHARACTERISTICS

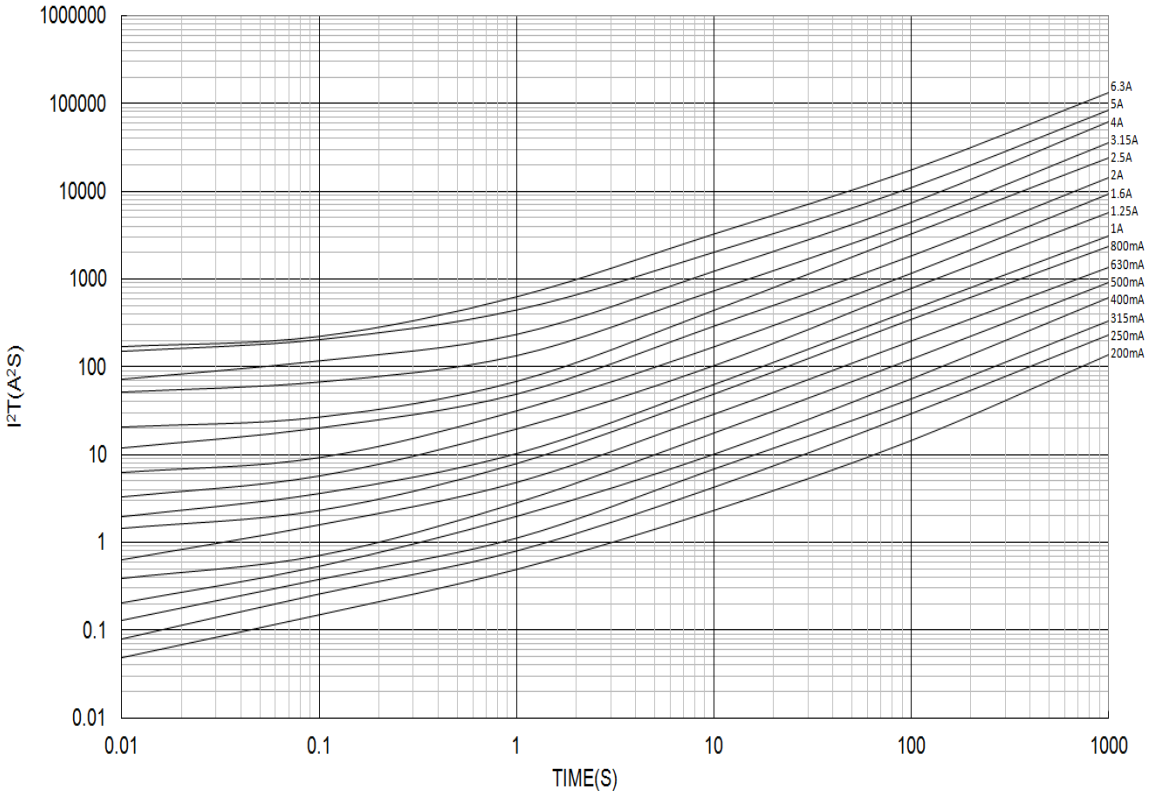
Rated Current	$1.5I_n$	$2.1I_n$	$2.75I_n$		$4I_n$		$10I_n$	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
200mA-800mA	60min.	30min.	250ms	80sec.	50ms	5sec.	5ms	150ms
1A-3.15A	60min.	30min.	750ms	80sec.	95ms	5sec.	10ms	150ms
4A-10A	60min.	30min.	750ms	80sec.	150ms	5sec.	10ms	150ms
＞10A	60min.	30 min	750ms	80sec.	150ms	8sec.	10ms	150ms

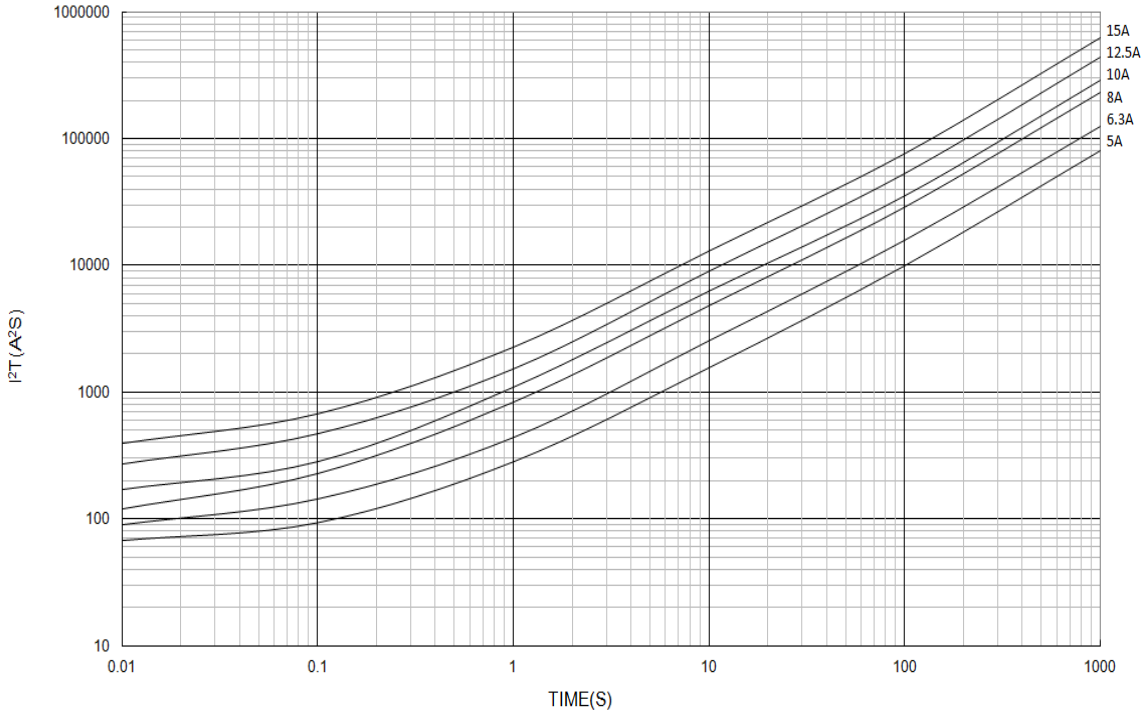
5.6 AVERAGE TIME CURRENT ONLY （I-T）CURVES（FOR REFERENCE





5.7 I2T CHARACTERISTICS CURVE（FOR REFERENCE ONLY）

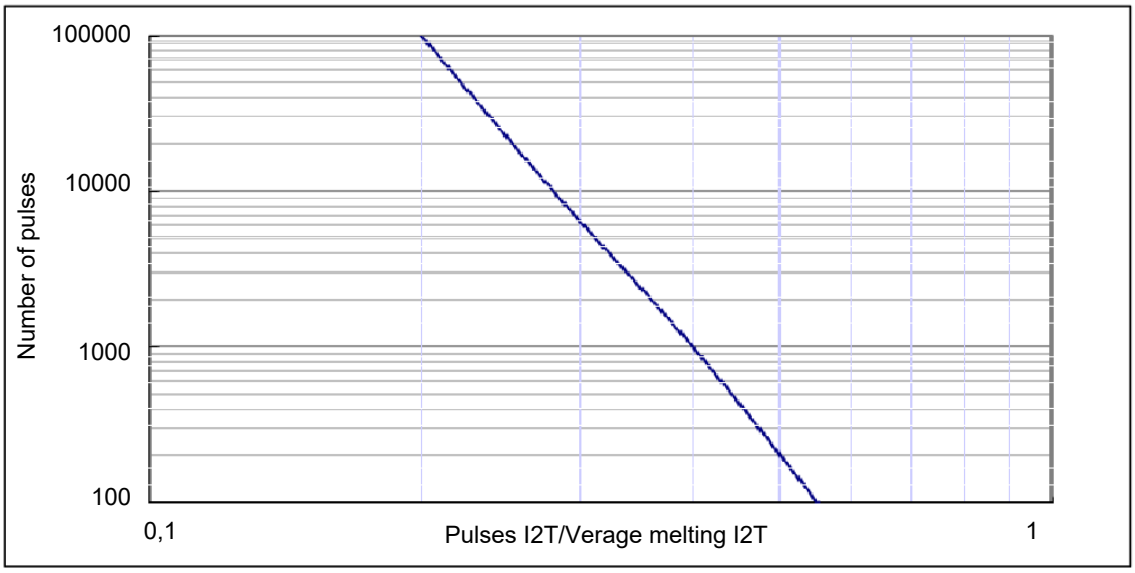




5.8 PULSE

Pulse can produce thermal cycling and mechanic fatigue which could affect the life of fuse. In design the selected fuse should have a I^2T value much greater than the I^2T value of pulse. Refer to follow table showing the relationship between the life of fuse (the endurable times of pulse shock) and U (ratio between pulse I^2T value and fuse I^2T value).

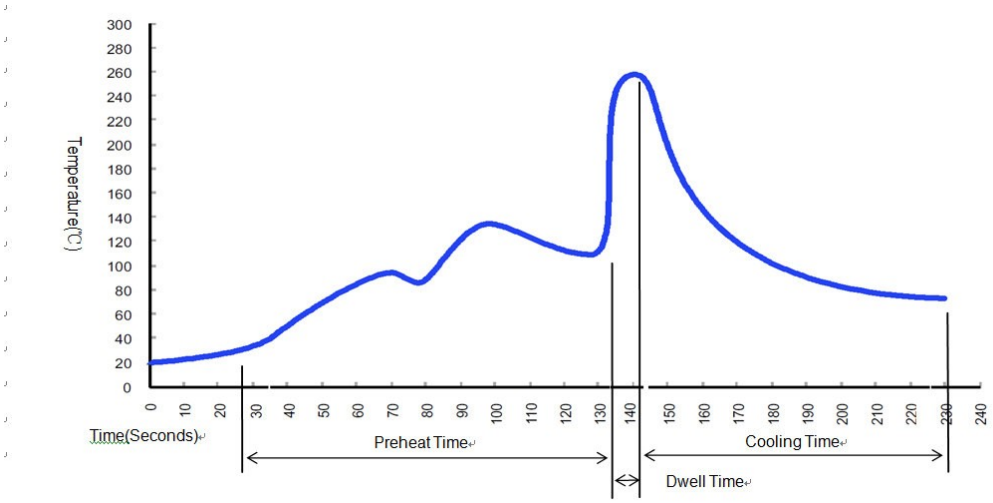
Endurable times of pulse shock	U(ratio)
100,000times	22%
10,000times	29%
1,000times	38%
100times	48%



5.9 SOLDERING PARAMETERS

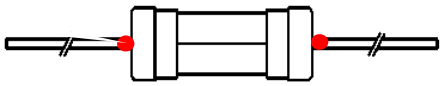
1) Wave soldering: 260℃, 10sec. Max.

2) Manual soldering: 300℃, 3sec. Max.



5.10 Cold resistance test

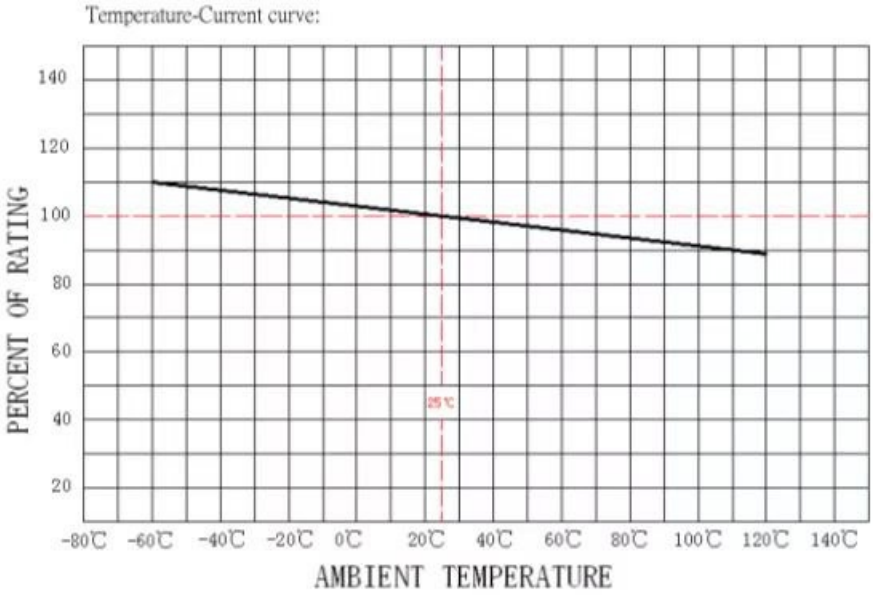
Input 10% of fuse rated current to fuse for cold resistance test at surrounding temperature of 25±2℃.



6. ENVIRONMENTAL PARAMETERS

6.1 Operating Temperature: -55℃ ～ 125 ℃.

The current carrying capacity tests of a fuse are performed at 25℃ and will be effected by changes with the ambient temperature. The higher the ambient temperature, the shorter fuse life will be, and the lower the current carrying capacity will be. So the ambient temperature shall be considered for proper fuse selection. Refer to the following chart showing the effect on the current carrying capacity of all kinds of fuse..



6.2 Under airtight in temperature +10~60℃ `relative humidity ≤75% can store 3 years.
\Without dew in temperature +10~60℃ `relative humidity be 95% maximum value for 30days.

7. The specification for validity

7.1 Agreement of revision

Specifications for need revision, must be performed after both companies agreement.

7.2 Validity

The specifications can be used temporarily during the period of approval .If you have no any objection or not return one hard copy to us within one month.this specification will be operated as a valid document .