# XIAMEN NINGLY. ELECTRONICS CO.,LTD.

#### PRODUCT SPECIFICATION

**50T SERIES** 

ISSUED DATE: REV. NO.: DOC. NO.: PAGE:

2003/8/5 A03 NLD-PSI-019 Page 1 of 3

PREPARED BY CHECKED BY	APPROVED BY
------------------------	-------------

#### 1. SCOPE

This specification defines the technical requirement of miniature fuse type 50T SERIES which are approved by CCC, SEMKO, VDE, BSI, IMQ, UR and CSA.

#### 2. APPLICABLE STANDARD & APPROVED DETAILS

2.1 APPLICABLE STANDARD: Applicable standard for 50T SERIES: IEC127

#### 2.2 APPROVED DETAILS:

RATED	CCC		SEMKO		VDI	Ξ	BSI	
VOLTAG E	APPROVED RANGE	CERT.NO	APPROVED RANGE	CERT. NO	APPROVED RANGE	CERT. NO	APPROVE D RANGE	CERT. .NO.
250V	100mA -15A	2002010207014 537	125mA-6.3A	9649155/ 01-34	125mA-6.3A	139231	125mA- 6.3A	KM5265 2
RATED	IMQ		UR		CSA			
VOLTAG	APPROVED	CERT.NO	APPROVED	CERT	APPROVED	CERT.		
E	RANGE	CEKI.NO	RANGE	NO	RANGE	NO		
250V	125mA-6.3A	E1475	125mA-15A	E156471A	125mA-6.3A	LR10117-8		

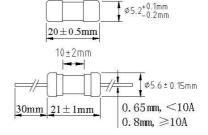
#### 3. MATERIAL

PART	MATERIAL	REMARK
Cap	Brass	Nickel Plated
Tube	Clear Glass tube	
Cap with Lead	Brass	Nickel or Tin Plated
Lead	TinPlated Copper	
Element	1) Glass Fiber +Wire(B wire) 2) Solder Blob +Wire(B or A wire)	

#### 4. DIMENSION & CONSTRUCTION

#### 4.1 DEMENSION

NO LEAD TYPE



LEAD TYPE

#### 4.2 GLASS TUBE

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

# 4.3 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 24h at a temperature between 15 and 35. After removal from the water, an axial pull steadily increasing to 4N is applied to each cap for 1 min.

# 4.4 SOLDERING JOINT

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

#### 5. ELECTRICAL PERFORMANCE

#### 5.1 ALIGNMENT

The entire length of the fuse shall pass through the gauge by the fuses own weight. The construction of gauge is

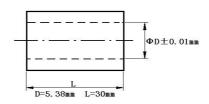
# XIAMEN NINGLY. ELECTRONICS CO.,LTD.

# PRODUCT SPECIFICATION

**50T SERIES** 

ISSUED DATE: REV. NO.: DOC. NO.: PAGE: 2003/8/5 A03 NLD-PSI-019 Page 2 of 3

as follows:



#### 5.2 VOLTAGE DROP

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

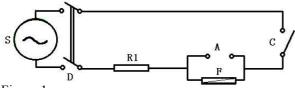
· -	voltage drop across the ruse-link at their rated current shari not exceed the maximum values is in follows.							
	Rated	Rated	Maximum	Maximum sustained				
	current	Voltage(V)	Voltage drop(mV)	Power dissipation(W)				
	100mA		2, 500					
	125mA		2,000					
	160mA		1, 900					
	200mA		1, 500					
	250mA		1, 300					
	315mA		1, 100					
	400mA		1,000					
	500mA		900					
	630mA		300					
	800mA		250					
	1A		150					
	1.25A	250	150	1.6				
	1.6A		150					
	2A		150					
	2.5A		120					
	3. 15A		100					
	4A		100					
	5A		100					
	6.3A		100					
	8A		100					
	10A		100					
	12A		100					
	1.5A		100					

# 5.3 PRE-ARCING TIME/CURRENT CHARACTERISTIC

Rated	2.1In	2.75In		4In		10In	
Current	Max	Min	Max	Min	Max	Min	Max
>32mA-100mA	2min	200ms	10sec	40ms	3sec	10ms	300ms
>100mA-6.3A	2min	600ms	10sec	150ms	3sec	20ms	300ms
8A-15A	30min	600ms	10sec	150ms	3sec	20ms	300ms

# 5.4 BREAKING CAPACITY

Rated breaking capacity is 35A or 10In whichever is greater, tested with a.c. A test circuit for the rated Lowbreaking capacity test in Figure 1.



- Figure 1
- A: Removable link used for calibration
- C: Contractor that makes the circuit
- D: Switch to disconnect the source of supply
- F: Fuse under test
- S: Source of supply, impedance less than 10% of the total impedance of the circuit
- R1: Series resistor, adjusted to obtain correct prospective current (The power factor shall be between 0.7 and 0.8.)

# XIAMEN NINGLY. ELECTRONICS CO.,LTD.

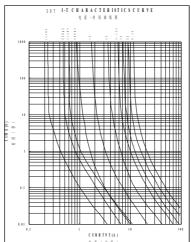
#### PRODUCT SPECIFICATION

**50T SERIES** 

ISSUED DATE: REV. NO.: DOC. NO.: PAGE: 2003/8/5 A03 NLD-PSI-019 Page 3 of 3

#### 5.5 ENDURANCE TESTS

- A. A current 1.2In is passed through the fuse-link for a period of 1h. The current is then switched off for a period of 15 min. The cycle is repeated 100 times.
- B. A current 1.5In is then passed through the fuse-link for 1h.
- 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.
  - 5.6 TIME-CURRENT CHARACTERISTIC CURVE



#### 6. MARKING

- 6.1 The marking on fuse shall be indelibry marked on end cap and easily visible.
- 6.2 The symbol for every fuse shall be as prescribed below:
  - 1) Approved safety logo:
- htt (S) (P) (S) (M) (III)
  - 2) Type: 50T (50T is not marked on the cap for the tuse which only have CCC approval.)
  - 3) Rated current or voltage:
  - 4) Trade mark:
- $\bigoplus_{T}$
- 5) Characteristic syn. T. T
- 6) Breaking capacity symbol: L
- 6.3 The smallest package in which the fuses are supplied shall containing the Type, Rated current, Rated voltage, Interrupting rating, Approval safety logo, Lot. No., Trade mark.

# 7. PACKAGING REQUIREMENT

- 7.1 Domestic sales:
  - **7.1.1 NO LEAD TYPE:200EA/small bag**→25 small bags/big bag→2 big bags/small external carton;
- 7.1.2 LEAD TYPE:100EA/small bag  $\rightarrow$  25 small bags/big bag  $\rightarrow$  4 big bags/big external carton. small external carton dimensions: long  $\times$  width  $\times$  high=32  $\times$  24  $\times$  16.5cm;

**Big** external carton dimensions:  $long \times width \times high=35.5 \times 29.5 \times 26 cm$ ;

- 7.2 Oversea sales:
- 7.2.1 NO LEAD TYPE:200EA/small bag→5 small bags/box→10 boxes/middling external carton;
- **7.2.2 LEAD TYPE:100EA/small bag**→5 small bags/box→10 boxes/middling external carton;

Middling external carton dimensions: long × width × high=35.5 × 29.5 × 26cm;

7.3 Packaging shall be so carried out that the products will not absorb moisture or be damaged during transportation or storage.