

 <b>FUZETEC TECHNOLOGY CO., LTD.</b>	<b>NO.</b>	<b>PQ05-101E</b>		
	<b>Product Specification and Approval Sheet</b>	<b>Version</b>	<b>9</b>	<b>Page</b>

## Radial Leaded PTC Resettable Fuse: FUSB Series

### 1. Summary

- (a) **RoHS Compliant (Lead Free) Product**
- (b) **Applications: Low voltage USB equipment and Computers & peripherals**
- (c) **Product Features: Low resistance, Fast trip time, Low trip-to-hold ratio**
- (d) **Operation Current: 0.75A~2.50A**
- (e) **Maximum Voltage: 16V/30Vdc**
- (f) **Temperature Range : -40°C to 85°C**

### 2. Agency Recognition

**UL: File No. E211981**  
**C-UL: File No. E211981**  
**TÜV: File No. R50004084**

### 3. Electrical Characteristics (23°C)

Part Number	Hold Current	Trip Current	Max.Time to Trip		Max. Current	Rated Voltage	Typ. Power	Resistance	
			Current	Time				RMIN	R1MAX
			I <sub>H</sub> , A	I <sub>T</sub> , A				A	Sec
<b>FUSB075F</b>	0.75	1.30	8.0	0.4	40	16	0.3	0.08	0.23
<b>FUSB090F</b>	0.90	1.80	8.0	1.2	40	16/30	0.6	0.07	0.18
<b>FUSB110F</b>	1.10	2.20	8.0	2.3	40	16/30	0.7	0.05	0.14
<b>FUSB120F</b>	1.20	2.00	8.0	0.7	40	16	0.6	0.04	0.14
<b>FUSB135F</b>	1.35	2.70	8.0	4.5	40	16/30	0.8	0.04	0.12
<b>FUSB155F</b>	1.55	2.70	7.8	2.2	40	16	0.7	0.03	0.12
<b>FUSB160F</b>	1.60	3.20	8.0	9.0	40	16/30	0.9	0.03	0.11
<b>FUSB185F</b>	1.85	3.70	8.0	10.0	40	16/30	1.0	0.03	0.09
<b>FUSB250F</b>	2.50	5.00	8.0	40.0	40	16/30	1.2	0.02	0.07

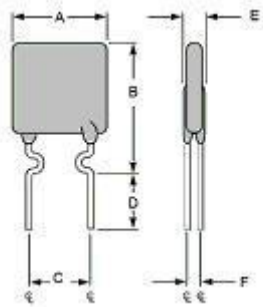
I<sub>H</sub>=Hold current-maximum current at which the device will not trip at 23°C still air.  
I<sub>T</sub>=Trip current-minimum current at which the device will always trip at 23°C still air.  
V<sub>MAX</sub>=Maximum voltage device can withstand without damage at its rated current.  
I<sub>MAX</sub>= Maximum fault current device can withstand without damage at rated voltage (V<sub>MAX</sub>).  
P<sub>d</sub>=Typical power dissipated from device when in tripped state in 23°C still air environment.  
R<sub>MIN</sub>=Minimum device resistance at 23°C.  
R<sub>1MAX</sub>=Maximum device resistance at 23°C, 1 hour after tripping .  
Physical specifications:  
Lead material: Tin plated copper clad steel,24 AWG.  
Soldering characteristics: Solder ability per ANSI/J-STD 002  
Solder heat withstand per IEC 68-2-20  
Insulating coating:Flame retardant epoxy polymer, meets UL 94V-0 requirement.

**NOTE : Specification subject to change without notice.**

2019/11/13



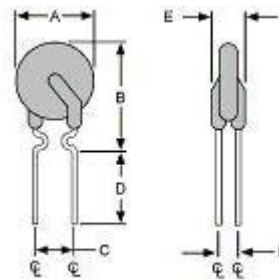
**4. Production Dimensions (millimeter)**



**Fig.1**

**Lead Size: 24AWG**

**Φ 0.51 mm Diameter**



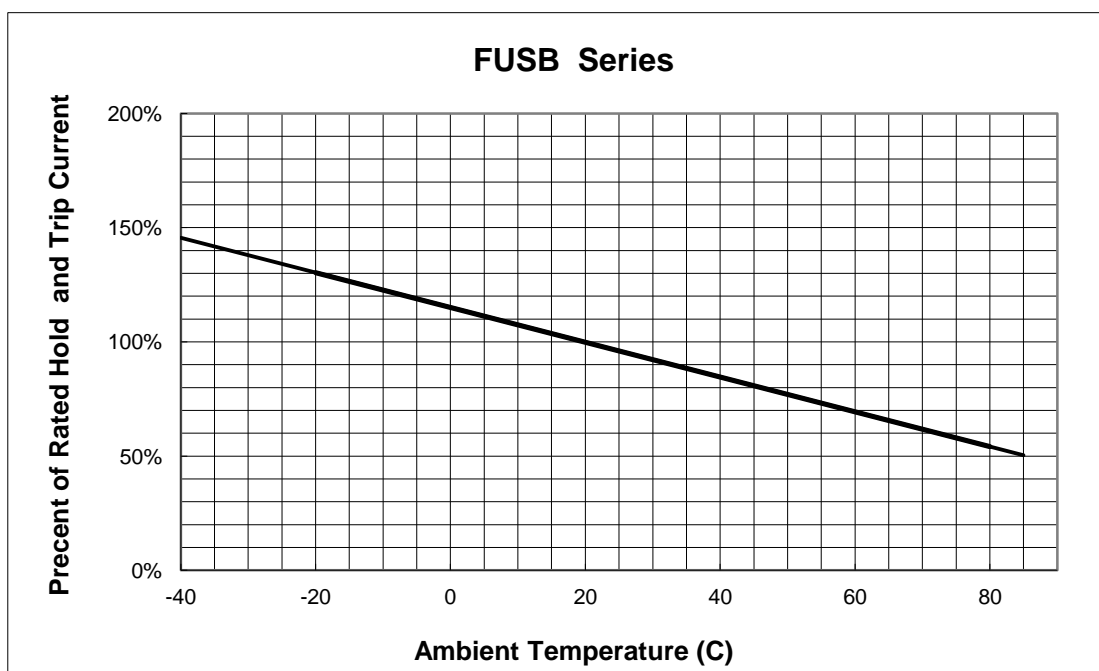
**Fig.2**

**Lead Size: 24AWG**

**Φ 0.51 mm Diameter**

Part Number	Fig	A	B	C	D	E	F
		Maximum	Maximum	Typical	Minimum	Maximum	Typical
FUSB075F	2	6.9	11.4	5.1	7.6	3.0	0.8
FUSB090F	1	7.4	12.2	5.1	7.6	3.0	0.8
FUSB110F	1	7.4	14.2	5.1	7.6	3.0	0.8
FUSB120F	2	6.9	11.7	5.1	7.6	3.0	0.8
FUSB135F	1	8.9	13.5	5.1	7.6	3.0	0.8
FUSB155F	2	6.9	11.7	5.1	7.6	3.0	0.8
FUSB160F	1	8.9	15.2	5.1	7.6	3.0	0.8
FUSB185F	1	10.2	15.7	5.1	7.6	3.0	0.8
FUSB250F	1	11.4	18.3	5.1	7.6	3.0	0.8

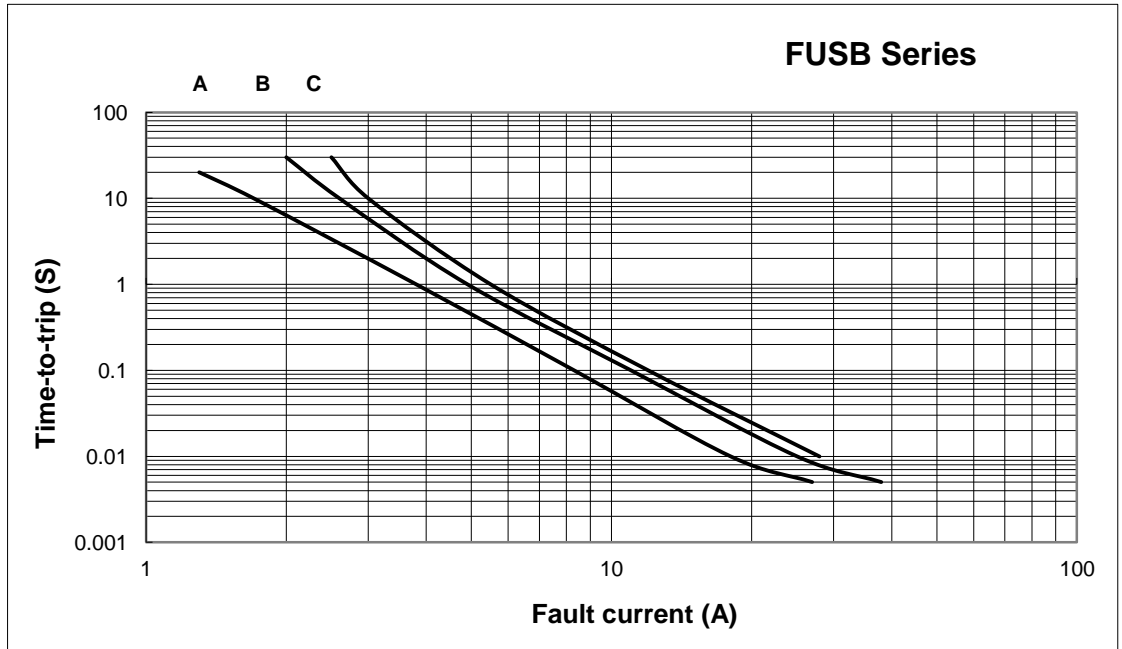
**5. Thermal Derating Curve**



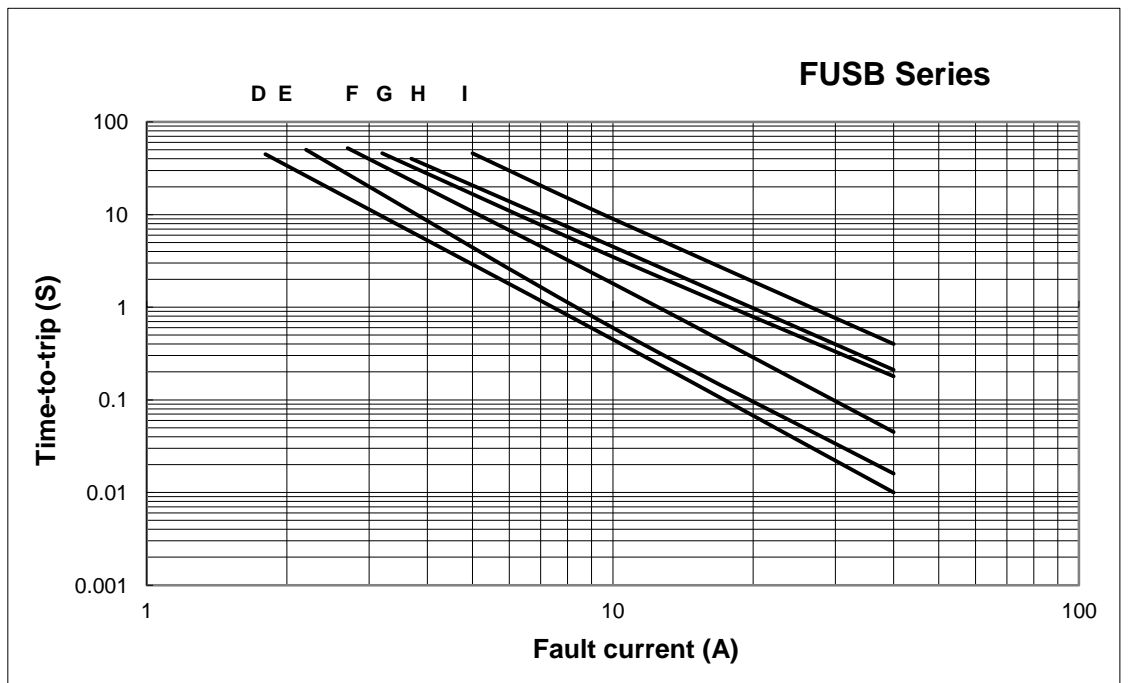


### 6. Typical Time-To-Trip at 23°C

- A = FUSB075F
- B = FUSB120F
- C = FUSB155F



- D = FUSB090F
- E = FUSB110F
- F = FUSB135F
- G = FUSB160F
- H = FUSB185F
- I = FUSB250F



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## 7. Material Specification

Lead material: Tin plated copper clad steel, 24 AWG

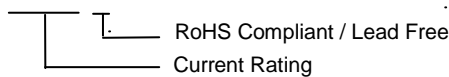
Soldering characteristics: MIL-STD-202, Method 208E

Insulating coating: Flame retardant epoxy ,meet UL-94V-0 requirement

## 8. Part Numbering and Marking System

### Part Numbering System

F U S B □ □ □ F



### Part Marking System

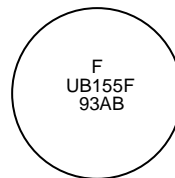
F \_\_\_\_\_ Fuzetec Logo

UB □ □ □ F

\_\_\_\_\_ RoHS Compliant / Lead Free  
 \_\_\_\_\_ Part Identification  
 \_\_\_\_\_ Product Family

□ □ □ □

\_\_\_\_\_ Date Code/Lot Number



Example

Note: Font on Marking may look slightly different due to fine turnings of each Marking printer.

**Warning:** - Each product should be carefully evaluated and tested for their suitability of application.



- Operation beyond the specified maximum rating or improper use may result in damage and possible electrical arcing and/or flame.
- PPTC device are intended for occasional overcurrent protection. Application for repeated overcurrent condition and/or prolonged trip are not anticipated.
- Avoid contact of PPTC device with chemical solvent, including some inert material such as silicone based oil, lubricant and etc. Prolonged contact will damage the device performance.
- Additional protection mechanism are strongly recommended to be used in conjunction with the PPTC device for protection against abnormal or failure conditions.
- Avoid use of PPTC device in a constrained space such as potting material, housing and containers where have limited space to accommodate device thermal expansion and/or contraction.

**NOTE :** Specification subject to change without notice.

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