



## 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**

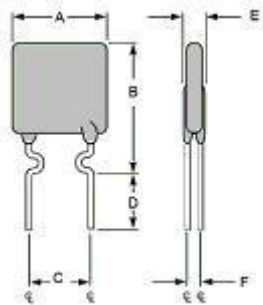
### 3. Electrical Characteristics (23°C)

| Part Number     | Hold Current | Trip Current | Max.Time to Trip   |                    | Max. Current | Rated Voltage | Typ. Power | Resistance       |                   |
|-----------------|--------------|--------------|--------------------|--------------------|--------------|---------------|------------|------------------|-------------------|
|                 |              |              | Current            | Time               |              |               |            | R <sub>MIN</sub> | R <sub>1MAX</sub> |
|                 |              |              | 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.



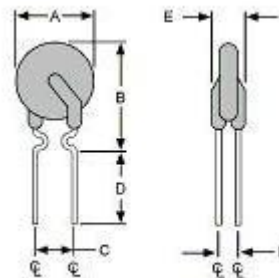
**4. Production Dimensions (millimeter)**



**Fig.1**

**Lead Size: 24AWG**

**Φ 0.51 mm Diameter**



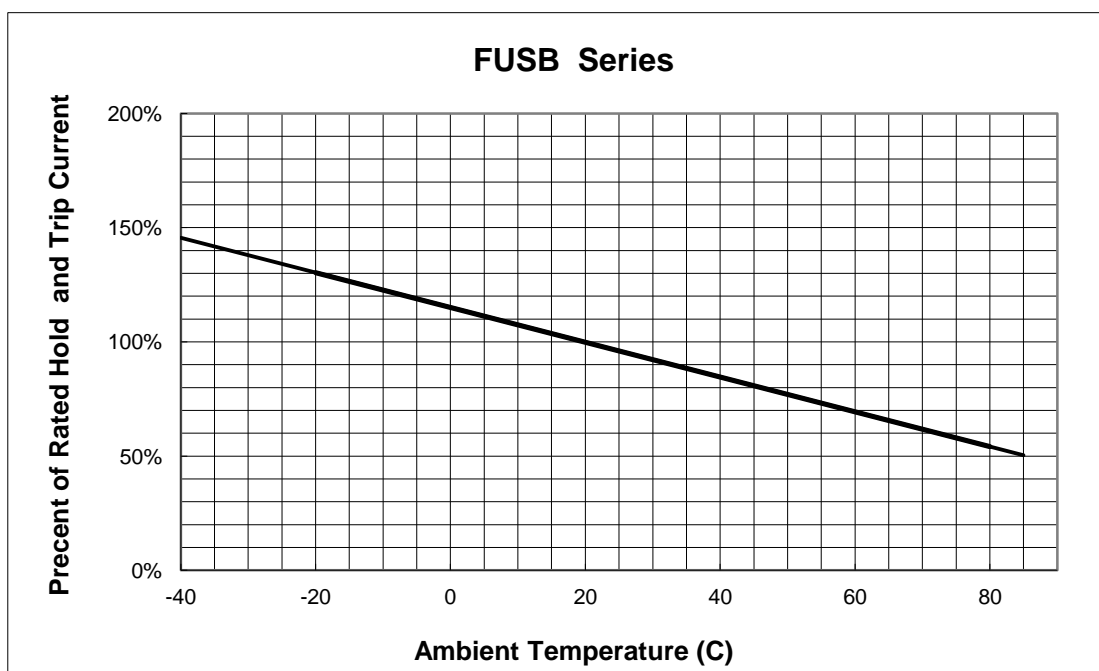
**Fig.2**

**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     |

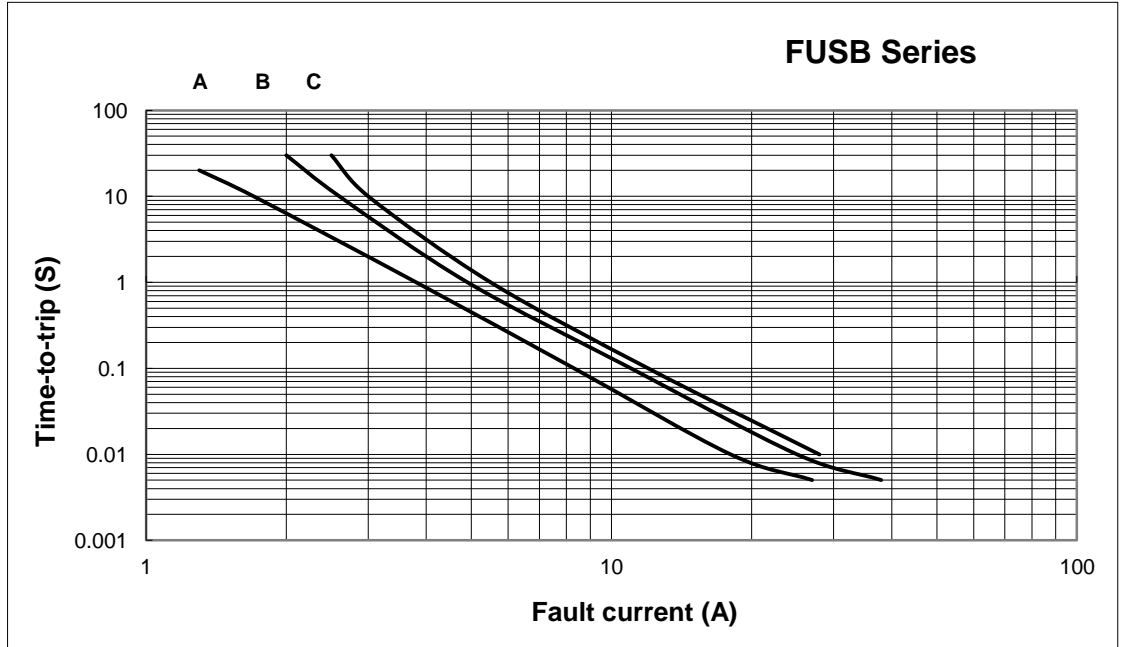
**5. Thermal Derating Curve**



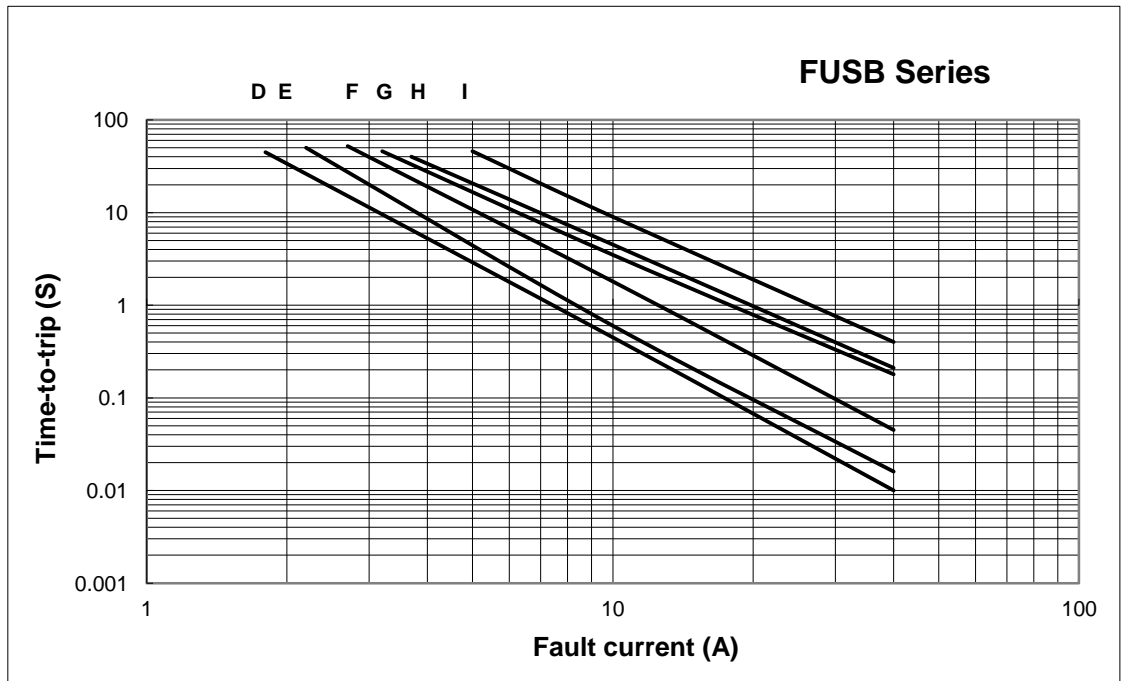


### 6. Typical Time-To-Trip at 23°C

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



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



|   |   |                  |          |             |
|---|---|------------------|----------|-------------|
|  <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> |

## 7. Material Specification

Lead material: Tin plated copper clad steel, 24 AWG

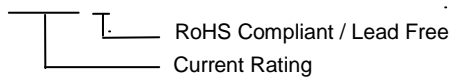
Soldering characteristics: MIL-STD-202, Method 208E

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

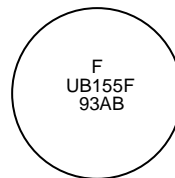
F \_\_\_\_\_ Fuzetec Logo

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.

2019/11/13

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Resettable Fuses - PPTC](#) category:*

*Click to view products by [Fuzetec](#) manufacturer:*

Other Similar products are found below :

[RF0077-000](#) [RF0627-000](#) [RF3301-000](#) [RF3382-000](#) [SMD125-2](#) [RF1973-000](#) [RF2531-000](#) [RF2873-000](#) [RF3060-000](#) [TR600-150Q-B-0.5-0.130](#) [RXE090](#) [5E4795/04-1502](#) [TRF250-080T-B-1.0-0.125](#) [SMD100-2](#) [NIS5431MT1TXG](#) [SMD250-2](#) [RS30-090](#) [RS30-600](#) [RS30-800](#) [RS30-900](#) [RS60RB-160](#) [RS60SB-250](#) [SB250-145](#) [0ZCH0110AF2E](#) [0603L001/60YR](#) [0603L003/36YR](#) [BK250-120-SZ-E0.6](#) [BK60-010-DI-E0.5](#) [BK250-040-DY-E0.6](#) [RF2631-000](#) [NIS5420MT2TXG](#) [NIS5420MT3TXG](#) [NIS6420MT1TWG](#) [RF5032-000](#) [RF5051-000](#) [RF5034-000](#) [RF5105-000](#) [RF5062-000](#) [RF5055-000](#) [RF5052-000](#) [2920L075/72MR](#) [BSMD0603-025-24V](#) [BSMD0402L-005](#) [BSMD0603-010-9V](#) [BSMD1812-020-60V](#) [BSMD2920-400-30V](#) [BSMD0603-010-12V](#) [BSMD0805-035-30V](#) [BSMD1210-150-16V](#) [BSMD0805-003-60V](#)