



## 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: 750mA~2.5A**
- (e) **Maximum Voltage: 16V/30V**
- (f) **Temperature Range : -40°C to 85°C**

### 2. Agency Recognition

UL: File No. E211981

C-UL: File No. E211981

TÜV: File No. R 50004084

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

Part Number	Hold Current	Trip Current	Max.Time to Trip		Maximum Current	Rated Voltage	Typical Power	Resistance Tolerance	
								R <sub>MIN</sub>	R <sub>1MAX</sub>
			at 8A	at 5xI <sub>H</sub>					
I <sub>H</sub> , A	I <sub>T</sub> , A			I <sub>MAX</sub> , A	V <sub>MAX</sub> , Vdc	P <sub>d</sub> , W			
FUSB075F	0.75	1.30	0.4	--	40	16	0.3	0.08	0.23
FUSB090F	0.90	1.80	1.2	5.9	40	16/30	0.6	0.07	0.18
FUSB110F	1.10	2.20	2.3	6.6	40	16/30	0.7	0.05	0.14
FUSB120F	1.20	2.00	0.5	--	40	16	0.6	0.04	0.14
FUSB135F	1.35	2.70	4.5	7.3	40	16/30	0.8	0.04	0.12
FUSB155F	1.55	2.70	0.6	--	40	16	0.7	0.03	0.12
FUSB160F	1.60	3.20	9.0	8.0	40	16/30	0.9	0.03	0.11
FUSB185F	1.85	3.70	10.0	8.7	40	16/30	1.0	0.03	0.09
FUSB250F	2.50	5.00	40.0	10.3	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, 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.

**4. Production Dimensions (millimeter)**

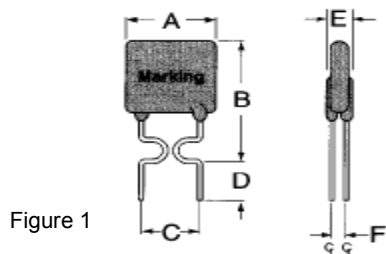


Figure 1

Lead Size: 24AWG  
 $\Phi$  0.51 mm Diameter

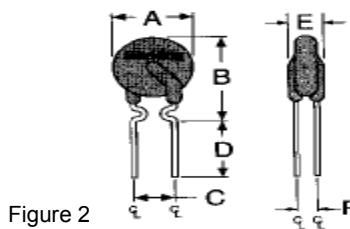
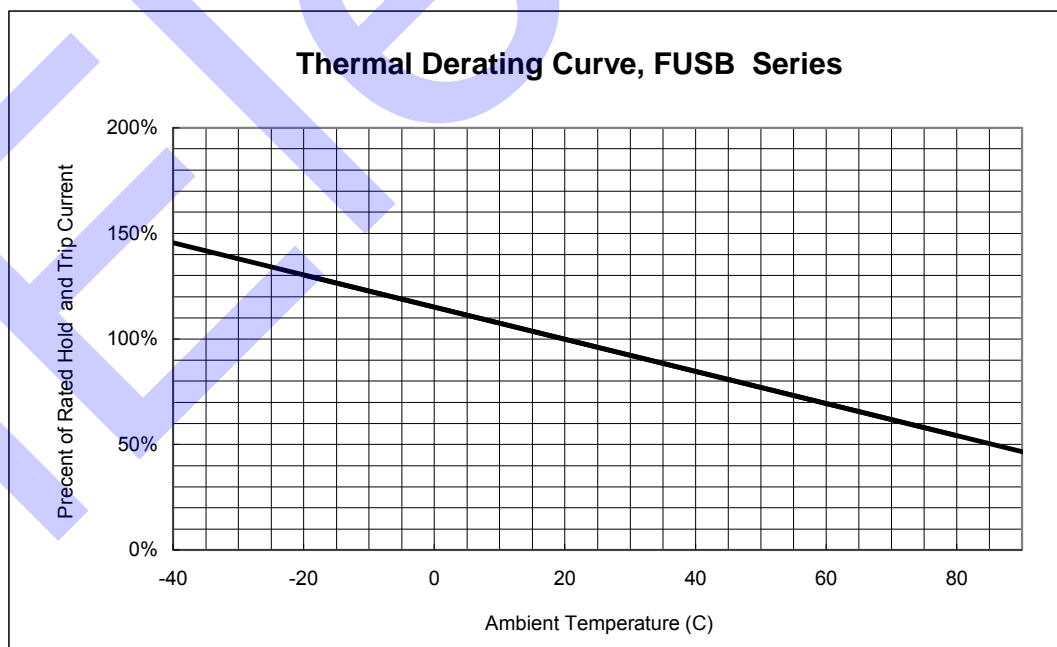


Figure 2

Lead Size: 24AWG  
 $\Phi$  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**

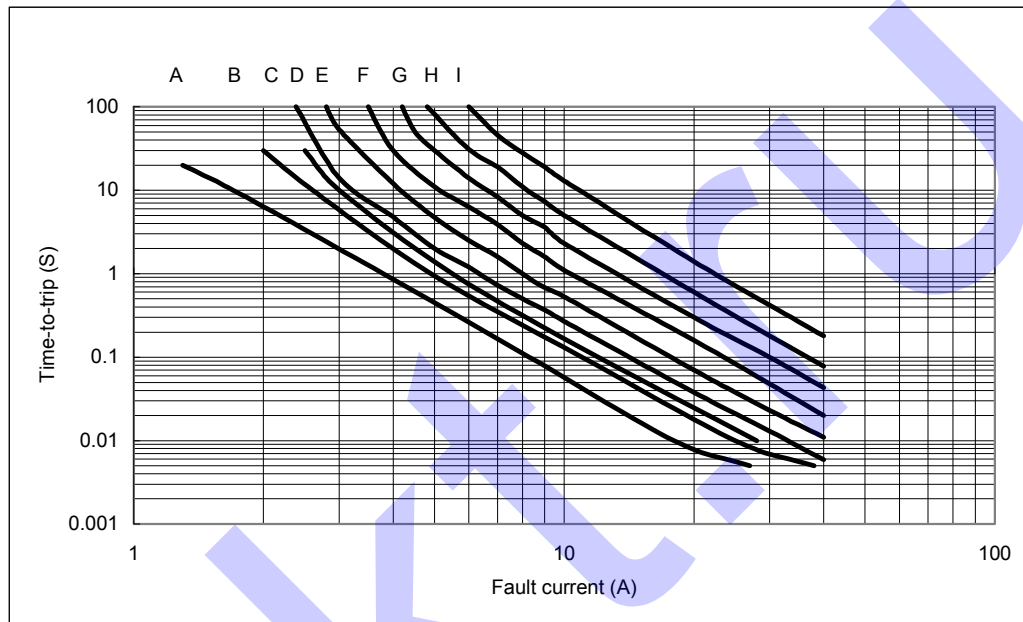


**NOTE : Specification subject to change without notice.**



### 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



### 7. Material Specification

Lead material: Tin plated copper, 24 AWG

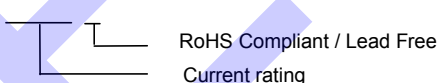
Soldering characteristics: MIL-STD-202, Method 208E

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

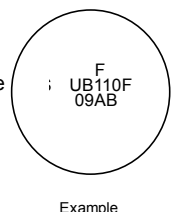
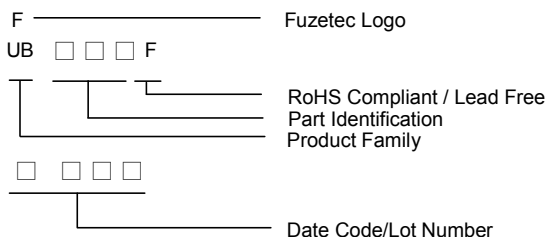
### 8. Part Numbering and Marking System

#### Part Numbering System

F U S B □ □ □ F



#### Part Marking System



- Warning:**
- Operation beyond the specified maximum ratings 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. Prolonged contact will damage the device performance.

NOTE : Specification subject to change without notice.