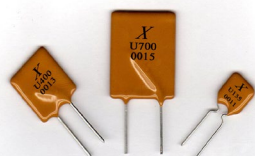


# Resettable PPTC Fuse



## Features

- Broadest range of Thru - Hole devices available in the industry
- Cured, Flame retardant epoxy, meets UL 94 V-0 requirement
- RoHS Compliant & Halogen Free

## Agency Approval and Environmental Compliance

Agency	File Number	Regulation
UL, C-UL	E211981	
TÜV	R50004084	

**30V XU Series**

*Thru - Hole Devices*

## Electrical Characteristics

Part Number	$I_H$	$I_T$	$T_{Trip}$	$I_{MAX}$	$V_{MAX}$	$P_{D Typ}$	$R_{MIN}$	$R1_{MAX}$
	A	A	sec / A	A	V	W	$\Omega$	$\Omega$
<b>XU090</b>	0.90	1.80	5.9/4.50	40	30	0.6	0.070	0.22
<b>XU110</b>	1.10	2.20	6.6/5.50	40	30	0.7	0.050	0.17
<b>XU135</b>	1.35	2.70	7.3/6.75	40	30	0.8	0.040	0.13
<b>XU160</b>	1.60	3.20	8.0/8.00	40	30	0.9	0.030	0.11
<b>XU185</b>	1.85	3.70	8.7/9.25	40	30	1.0	0.030	0.09
<b>XU250</b>	2.50	5.00	10.3/12.50	40	30	1.2	0.020	0.07
<b>XU300</b>	3.00	6.00	10.8/15.00	40	30	2.0	0.020	0.08
<b>XU400</b>	4.00	8.00	12.7/20.00	40	30	2.5	0.010	0.05
<b>XU500</b>	5.00	10.00	14.5/25.00	40	30	3.0	0.010	0.05
<b>XU600</b>	6.00	12.00	16.0/30.00	40	30	3.5	0.005	0.04
<b>XU700</b>	7.00	14.00	17.5/35.00	40	30	3.8	0.005	0.03
<b>XU800</b>	8.00	16.00	18.8/40.00	40	30	4.0	0.005	0.02
<b>XU900</b>	9.00	18.00	20.0/45.00	40	30	4.2	0.005	0.02

$I_H$ =Hold current-maximum current at which the device will not trip at 23°C still air.

$I_T$ =Trip current-minimum current at which the device will always trip at 23°C still air.

$T_{Trip}$ =Maximum time to trip(s) at assigned current.

$I_{MAX}$ = Maximum fault current device can withstand without damage at rated voltage ( $V_{MAX}$ ).

$V_{MAX}$ =Maximum voltage device can withstand without damage at its rated current.

$P_{D Typ}$ =Typical power dissipated from device when in tripped state in 23°C still air environment.

$R_{MIN}$ =Minimum device resistance at 23°C.

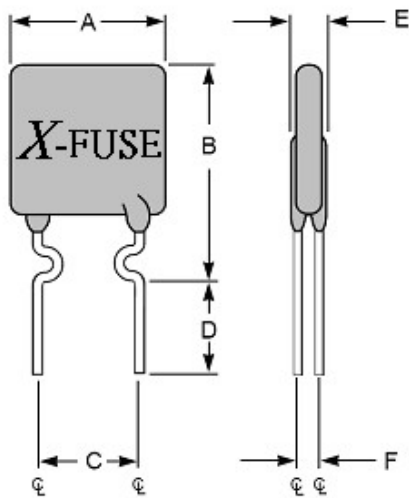
$R1_{MAX}$ =Maximum device resistance at 23°C, 1 hour after tripping .

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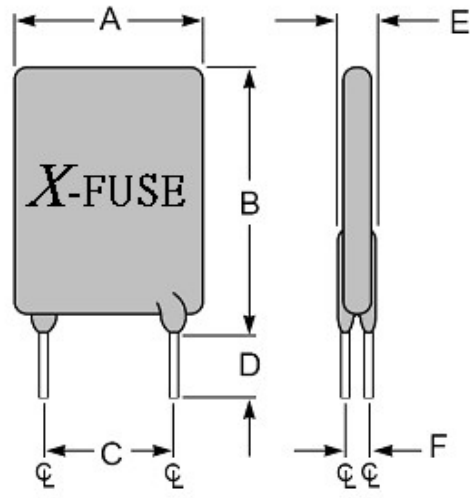
## Product Dimensions (Millimeter)

Part Number	Figure	A	B	C	D	E	F
		Maximum	Maximum	Typical	Minimum	Maximum	Typical
<b>XU090</b>	1	7.4	12.2	5.1	7.6	3.0	0.9
<b>XU110</b>	1	7.4	14.2	5.1	7.6	3.0	0.9
<b>XU135</b>	1	8.9	13.5	5.1	7.6	3.0	0.9
<b>XU160</b>	1	8.9	15.2	5.1	7.6	3.0	0.9
<b>XU185</b>	1	10.2	15.7	5.1	7.6	3.0	0.9
<b>XU250</b>	1	11.4	18.3	5.1	7.6	3.0	0.9
<b>XU300</b>	2	11.4	17.3	5.1	7.6	3.0	1.2
<b>XU400</b>	2	14.0	20.1	5.1	7.6	3.0	1.2
<b>XU500</b>	2	14.0	24.9	10.2	7.6	3.0	1.2
<b>XU600</b>	2	16.5	24.9	10.2	7.6	3.0	1.2
<b>XU700</b>	2	19.1	26.7	10.2	7.6	3.0	1.2
<b>XU800</b>	2	21.6	29.2	10.2	7.6	3.0	1.2
<b>XU900</b>	2	24.1	29.7	10.2	7.6	3.0	1.2



**Figure 1**

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



**Figure 2**

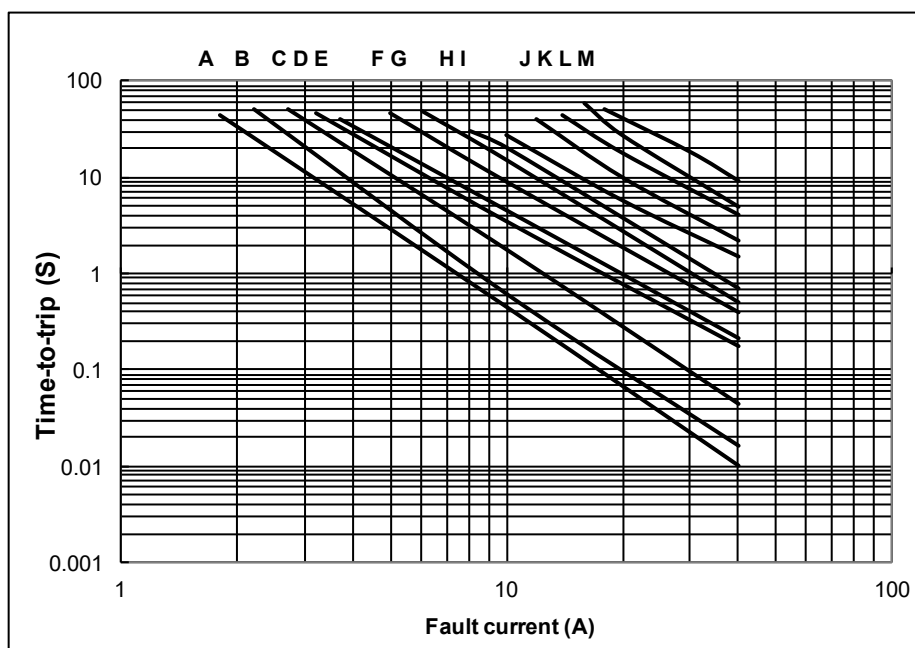
Lead Size: 20AWG,  
 $\Phi$  0.81 mm Diameter

## Thermal Derating Chart- $I_H$ (A)

Part Number	Maximum ambient operating Temperature(°C)									
	-40	-20	0	23	30	40	50	60	70	85
<b>XU090</b>	1.32	1.17	1.04	0.90	0.82	0.75	0.68	0.60	0.55	0.47
<b>XU110</b>	1.62	1.43	1.27	1.10	1.00	0.91	0.84	0.74	0.67	0.57
<b>XU135</b>	1.98	1.76	1.55	1.35	1.23	1.12	1.03	0.90	0.82	0.70
<b>XU160</b>	2.35	2.08	1.84	1.60	1.46	1.33	1.22	1.07	0.98	0.83
<b>XU185</b>	2.72	2.41	2.13	1.85	1.68	1.54	1.41	1.24	1.13	0.96
<b>XU250</b>	3.68	3.25	2.88	2.50	2.28	2.08	1.90	1.68	1.53	1.30
<b>XU300</b>	4.41	3.90	3.45	3.00	2.73	2.49	2.28	2.01	1.83	1.56
<b>XU400</b>	5.88	5.20	4.60	4.00	3.64	3.32	3.04	2.68	2.44	2.08
<b>XU500</b>	7.35	6.50	5.75	5.00	4.55	4.15	3.80	3.35	3.05	2.60
<b>XU600</b>	8.82	7.80	6.90	6.00	5.46	4.98	4.56	4.02	3.66	3.12
<b>XU700</b>	10.29	9.10	8.05	7.00	6.37	5.81	5.32	4.69	4.27	3.64
<b>XU800</b>	11.76	10.40	9.20	8.00	7.28	6.64	6.08	5.36	4.88	4.16
<b>XU900</b>	13.23	11.70	10.35	9.00	8.19	7.47	6.84	6.03	5.49	4.68

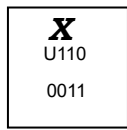
## Typical Time-To-Trip at 23°C

- A = XU090
- B = XU110
- C = XU135
- D = XU160
- E = XU185
- F = XU250
- G = XU300
- H = XU400
- I = XU500
- J = XU600
- K = XU700
- L = XU800
- M = XU900

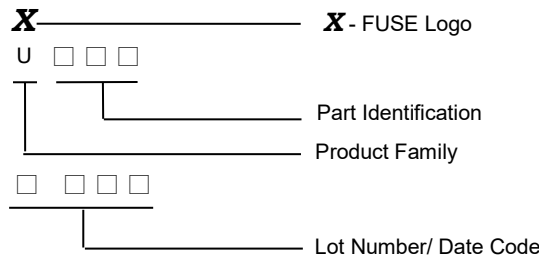


# Resettable PPTC Fuse

## Marking System



Example



## Package Information

### Bulk:

<b>X</b> U090~ <b>X</b> U110	-----	500pcs per bag
<b>X</b> U135~ <b>X</b> U250	-----	300pcs per bag
<b>X</b> U300~ <b>X</b> U500	-----	200pcs per bag
<b>X</b> U600~ <b>X</b> U900	-----	100pcs per bag

### Tape & Reel:

<b>X</b> U090~ <b>X</b> U250	-----	3000pcs per reel
<b>X</b> U300~ <b>X</b> U400	-----	1500pcs per reel
<b>X</b> U500	-----	1000pcs per reel

**Caution :** Operation beyond the specified maximum ratings or misuse can result in damage and possible electrical arcing and/or flame.  
 PPTC device are designed for occasional overcurrent protection. Not for continuously overcurrent circumstance and/or prolonged trip are not anticipated.  
 Keep PPTC device away from chemical solvent contact. Prolonged contact will damage the device performance.