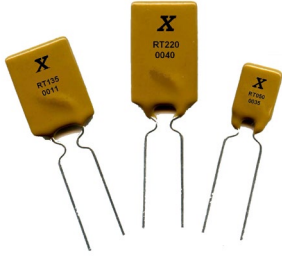


# Resettable PPTC Fuse



## 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	

33V **XRT** Series

Thru - Hole

## 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>XRT050</b>	0.50	1.00	5.0/2.50	40	36	0.67	0.140	0.448
<b>XRT075</b>	0.75	1.50	4.0/3.75	40	36	0.71	0.115	0.368
<b>XRT090</b>	0.90	1.80	3.5/4.50	40	36	0.74	0.090	0.288
<b>XRT120</b>	1.20	2.30	3.5/6.00	40	36	0.78	0.074	0.180
<b>XRT135</b>	1.35	2.50	4.5/6.75	40	36	0.84	0.059	0.143
<b>XRT160</b>	1.60	2.75	4.5/8.00	40	36	0.86	0.041	0.131
<b>XRT190</b>	1.90	3.00	3.5/9.50	40	36	0.90	0.045	0.092
<b>XRT220</b>	2.20	3.50	6.5/11.00	40	36	0.95	0.025	0.080
<b>XRT250</b>	2.50	4.00	8.0/12.50	40	36	0.99	0.020	0.064

$I_H$ =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.

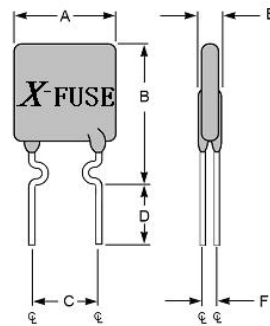
$R1_{MAX}$ =Maximum device resistance at 23°C, 1 hour after tripping .

# Resettable PPTC Fuse



## Product Dimensions (Millimeter)

Part Number	A	B	C	D	E	F
	Maximum	Maximum	Typical	Minimum	Maximum	Typical
<b>XRT050</b>	7.4	12.2	5.1	7.6	3.0	1.1
<b>XRT075</b>	7.4	12.2	5.1	7.6	3.0	1.1
<b>XRT090</b>	7.4	12.2	5.1	7.6	3.0	1.1
<b>XRT120</b>	7.4	12.2	5.1	7.6	3.0	1.1
<b>XRT135</b>	7.4	14.2	5.1	7.6	3.0	1.1
<b>XRT160</b>	7.4	14.0	5.1	7.6	3.0	1.1
<b>XRT190</b>	9.0	13.5	5.1	7.6	3.0	1.1
<b>XRT220</b>	10.0	17.0	5.1	7.6	3.0	1.1
<b>XRT250</b>	10.0	19.5	5.1	7.6	3.0	1.1



Lead Size: 24AWG,

Φ 0.51 mm Diameter

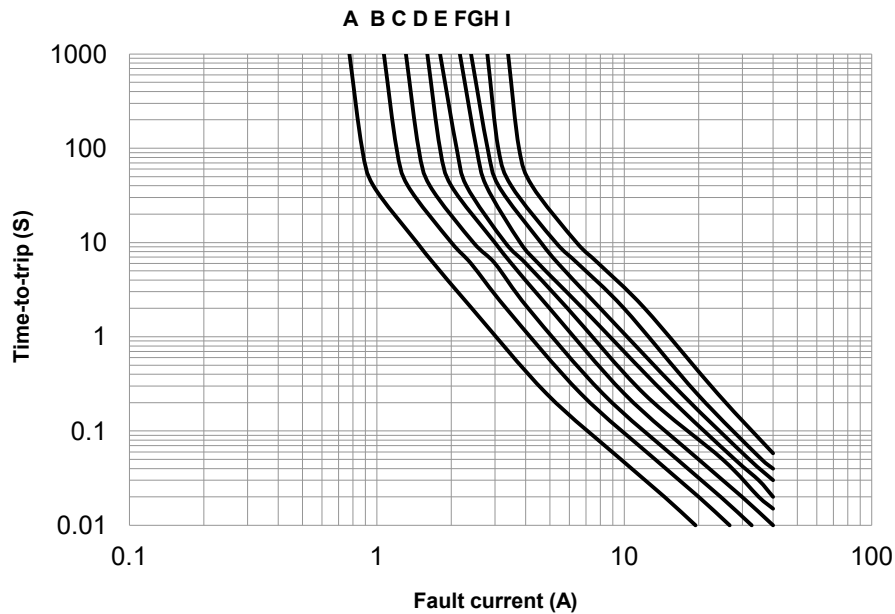
## Thermal Derating Chart- $I_H$ (A)

Part Number	Maximum ambient operating Temperature(°C)									
	-40	-20	0	23	30	40	50	60	70	85
<b>XRT050</b>	0.74	0.68	0.60	0.50	0.49	0.45	0.43	0.39	0.35	0.32
<b>XRT075</b>	1.11	1.01	0.90	0.75	0.74	0.68	0.64	0.59	0.53	0.48
<b>XRT090</b>	1.33	1.22	1.08	0.90	0.88	0.81	0.77	0.70	0.63	0.58
<b>XRT120</b>	1.78	1.62	1.44	1.20	1.18	1.08	1.02	0.94	0.84	0.77
<b>XRT135</b>	2.00	1.82	1.62	1.35	1.32	1.22	1.15	1.05	0.95	0.86
<b>XRT160</b>	2.37	2.16	1.92	1.60	1.57	1.44	1.36	1.25	1.12	1.02
<b>XRT190</b>	2.81	2.57	2.28	1.90	1.86	1.71	1.62	1.48	1.33	1.22
<b>XRT220</b>	3.26	2.97	2.64	2.20	2.16	1.98	1.87	1.72	1.54	1.41
<b>XRT250</b>	3.70	3.38	3.00	2.50	2.45	2.25	2.13	1.95	1.75	1.60

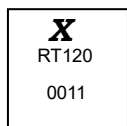
# Resettable PPTC Fuse

## Typical Time-To-Trip at 23 °C

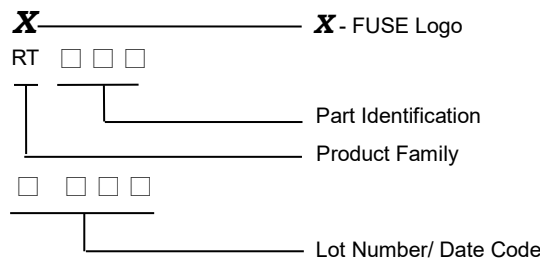
- A = ~~X~~RT050
- B = ~~X~~RT075
- C = ~~X~~RT090
- D = ~~X~~RT120
- E = ~~X~~RT135
- F = ~~X~~RT160
- G = ~~X~~RT190
- H = ~~X~~RT220
- I = ~~X~~RT250



## Marking System



Example



## Package Information

### Bulk:

~~X~~RT050~ ~~X~~RT250-----500pcs per bag

### Tape & Reel:

~~X~~RT050~ ~~X~~RT250-----3000pcs 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.