Resettable PPTC Fuse

Features

- ☐ Broadest range of Thru - Hole devices available in the industry
- ☐ Cured, Flame retardant epoxy, meets UL 94 V-0 requirement
- ☐ Available in lead-free version

Agency Approval and Environmental Compliance

Agency	File Number	Regulation
UL, C-UL	E346046	RoHS 2002/95/EC HF Halogen Free
TÜV	R50213367	

Note: XX005 UL, C-UL and TÜV pending

60V XX 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	A/S	A	V	W	Ω	Ω
XX005	0.05	0.10	0.25/5.0	40	60	0.26	7.30	20.0
XX010	0.10	0.20	0.50/4.0	40	60	0.38	2.50	7.50
XX017	0.17	0.34	0.85/3.0	40	60	0.48	2.00	8.00
XX020	0.20	0.40	1.00/2.2	40	60	0.41	1.83	4.40
XX025	0.25	0.50	1.25/2.5	40	60	0.45	1.25	3.00
XX030	0.30	0.60	1.50/3.0	40	60	0.49	0.88	2.10
XX040	0.40	0.80	2.00/3.8	40	60	0.56	0.55	1.29
XX050	0.50	1.00	2.50/4.0	40	60	0.77	0.50	1.17
XX065	0.65	1.30	3.25/5.3	40	60	0.88	0.31	0.72
XX075	0.75	1.50	3.75/6.3	40	60	0.92	0.25	0.60
XX090	0.90	1.80	4.50/7.2	40	60	0.99	0.20	0.47
XX110	1.10	2.20	5.50/8.2	40	60	1.50	0.15	0.38
XX135	1.35	2.70	6.75/9.6	40	60	1.70	0.12	0.30
XX160	1.60	3.20	8.00/11.4	40	60	1.90	0.09	0.22
XX185	1.85	3.70	9.25/12.6	40	60	2.10	0.08	0.19
XX250	2.50	5.00	12.50/15.6	40	60	2.50	0.05	0.13
XX300	3.00	6.00	15.00/19.8	40	60	2.80	0.04	0.10
XX375	3.75	7.50	18.75/24.0	40	60	3.20	0.03	0.08

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

I_T=Trip current-minimum current at which the device will always trip at 23℃ 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}).

All specifications are subject to revise without notice.

Resettable PPTC Fuse

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℃ still air environment.

R_{MIN}=Minimum device resistance at 23℃.

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

Product Dimensions (Millimeter)

Part Number	Figure	A	B	C	D	E	F
		Maximum	Maximum	Typical	Minimum	Maximum	Typical
XX005	1	7.4	12.7	5.1	7.6	3.1	1.1
XX010	1	7.4	12.7	5.1	7.6	3.1	1.1
XX017	1	7.4	12.7	5.1	7.6	3.1	1.1
XX020	1	7.4	12.7	5.1	7.6	3.1	1.1
XX025	1	7.4	12.7	5.1	7.6	3.1	1.1
XX030	1	7.4	13.0	5.1	7.6	3.1	1.1
XX040	1	7.6	13.5	5.1	7.6	3.1	1.1
XX050	1	7.9	13.7	5.1	7.6	3.1	1.1
XX065	1	9.7	14.5	5.1	7.6	3.1	1.1
XX075	1	10.4	15.2	5.1	7.6	3.1	1.1
XX090	1	11.7	15.8	5.1	7.6	3.1	1.1
XX110	2	13.0	18.0	5.1	7.6	3.1	1.4
XX135	2	14.5	19.6	5.1	7.6	3.1	1.4
XX160	2	16.3	21.3	5.1	7.6	3.1	1.4
XX185	2	17.8	22.9	5.1	7.6	3.1	1.4
XX250	2	21.3	26.4	10.2	7.6	3.1	1.4
XX300	2	24.9	30.0	10.2	7.6	3.1	1.4
XX375	2	28.5	33.5	10.2	7.6	3.1	1.4

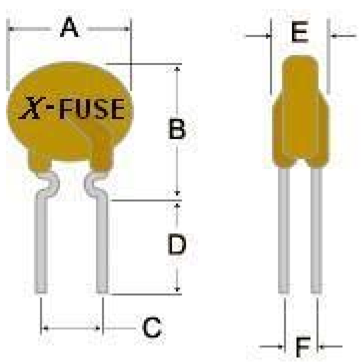


Figure 1

Lead Size: 24AWG,

Φ 0.51 mm Diameter

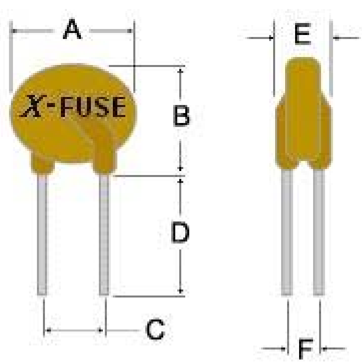


Figure 2

Lead Size: 20AWG,

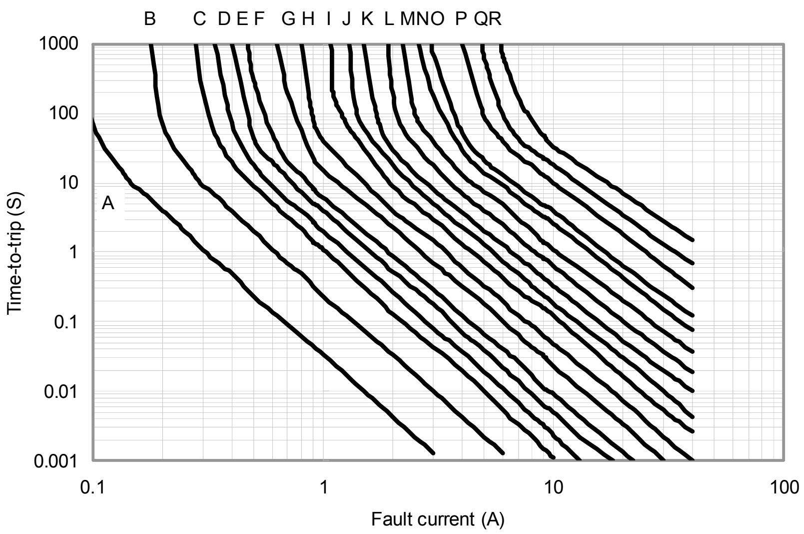
Φ 0.81 mm Diameter

Thermal Derating Chart-I_H (A)

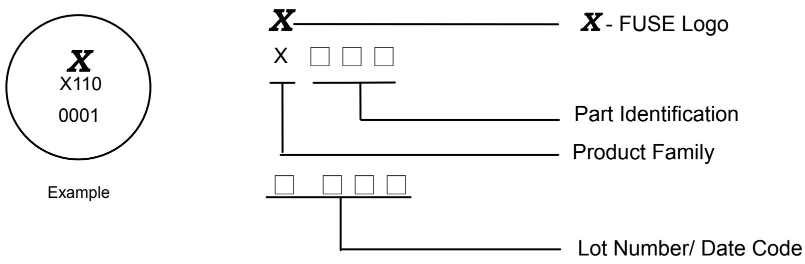
Part Number	Maximum ambient operating Temperature(℃)									
	-40	-20	0	23	30	40	50	60	70	85
XX005	0.079	0.068	0.060	0.050	0.045	0.041	0.036	0.032	0.027	0.020
XX010	0.16	0.14	0.12	0.10	0.09	0.08	0.07	0.06	0.05	0.04
XX017	0.27	0.23	0.20	0.17	0.15	0.14	0.12	0.11	0.09	0.07
XX020	0.32	0.27	0.24	0.20	0.18	0.16	0.14	0.13	0.11	0.08
XX025	0.40	0.34	0.30	0.25	0.23	0.20	0.18	0.16	0.14	0.10
XX030	0.47	0.41	0.36	0.30	0.27	0.24	0.22	0.19	0.16	0.12
XX040	0.63	0.54	0.48	0.40	0.36	0.32	0.29	0.25	0.22	0.16
XX050	0.79	0.68	0.60	0.50	0.45	0.41	0.36	0.32	0.27	0.20
XX065	1.03	0.88	0.77	0.65	0.59	0.53	0.47	0.41	0.35	0.26
XX075	1.19	1.02	0.89	0.75	0.68	0.61	0.54	0.47	0.41	0.30
XX090	1.42	1.22	1.07	0.90	0.81	0.73	0.65	0.57	0.49	0.36
XX110	1.74	1.50	1.31	1.10	0.99	0.89	0.79	0.69	0.59	0.44
XX135	2.13	1.84	1.61	1.35	1.22	1.09	0.97	0.85	0.73	0.54
XX160	2.53	2.18	1.90	1.60	1.44	1.30	1.15	1.01	0.86	0.64
XX185	2.92	2.52	2.20	1.85	1.67	1.50	1.33	1.17	1.00	0.74
XX250	3.95	3.40	2.98	2.50	2.25	2.03	1.80	1.58	1.35	1.00
XX300	4.74	4.08	3.57	3.00	2.70	2.43	2.16	1.89	1.62	1.20
XX375	5.93	5.10	4.46	3.75	3.38	3.04	2.70	2.36	2.03	1.50

Typical Time-To-Trip at 23℃

A =XX005
B =XX010
C =XX017
D =XX020
E =XX025
F =XX030
G =XX040
H =XX050
I =XX065
J =XX075
K =XX090
L =XX110
M =XX135
N =XX160
O =XX185
P =XX250
Q=XX300
R =XX375



Marking System



Package Information

Bulk:

XX005~XX050--500pcs per bag

XX065~XX110--300pcs per bag

XX135~XX185--200pcs per bag

XX250~XX375--100pcs per bag

Tape & Reel:

XX005~XX075--3000pcs per reel

XX090~XX185--1500pcs per reel

XX250---800pcs per reel

XX300~XX375--600pcs 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.