

UBFRX90 Series (90V)

Electrical Characteristics

Part No Figure / Lead Option	I_{hold} (A)	I_{trip} (A)	V_{max} (V)	I_{max} (A)	P_d typ (W)	Max. (A)	Time-to-trip (s)	R_{min} (Ω)	R_{1max} (Ω)
UBF RX90010 Fig. 1, \emptyset 0.51, Sn/CuFe	0.10	0.20	90	40	0.38	0.50	4.0	2.50	7.50
UBF RX90015 Fig. 1, \emptyset 0.51, Sn/CuFe	0.10	0.35	90	40	0.70	0.50	10.0	2.50	7.50
UBF RX90017 Fig. 1, \emptyset 0.51, Sn/CuFe	0.17	0.34	90	40	0.48	0.85	3.0	2.00	8.00
UBF RX90020 Fig. 1, \emptyset 0.51, Sn/CuFe	0.20	0.40	90	40	0.41	1.00	2.2	1.83	4.40
UBF RX90025 Fig. 1, \emptyset 0.51, Sn/CuFe	0.25	0.50	90	40	0.45	1.25	2.5	1.25	3.00
UBF RX90030 Fig. 1, \emptyset 0.51, Sn/CuFe	0.30	0.60	90	40	0.49	1.50	3.0	0.88	2.10
UBF RX90035 Fig. 1, \emptyset 0.51, Sn/CuFe	0.35	0.75	90	40	1.30	1.30	10.0	0.70	2.50
UBF RX90040 Fig. 1, \emptyset 0.51, Sn/CuFe	0.40	0.80	90	40	0.56	2.00	3.8	0.55	1.29
UBF RX90050 Fig. 1, \emptyset 0.51, Sn/Cu	0.50	1.00	90	40	0.77	2.50	4.0	0.50	1.17
UBF RX90055 Fig. 1, \emptyset 0.51, Sn/Cu	0.50	1.20	90	40	1.50	2.50	10.0	0.40	1.17
UBF RX90065 Fig. 1, \emptyset 0.51, Sn/Cu	0.65	1.30	90	40	0.88	3.25	5.3	0.31	0.72
UBF RX90075 Fig. 1, \emptyset 0.51, Sn/Cu	0.75	1.50	90	40	0.92	3.75	6.3	0.25	0.60
UBF RX90090 Fig. 1, \emptyset 0.51, Sn/Cu	0.90	1.80	90	40	0.99	4.50	7.2	0.20	0.47
UBF RX90110 Fig. 2, \emptyset 0.81, Sn/Cu	1.10	2.20	90	40	1.50	5.50	8.2	0.15	0.38
UBF RX90135 Fig. 2, \emptyset 0.81, Sn/Cu	1.35	2.70	90	40	1.70	6.75	9.6	0.12	0.30
UBF RX90160 Fig. 2, \emptyset 0.81, Sn/Cu	1.60	3.20	90	40	1.90	8.00	11.4	0.09	0.22
UBF RX90185 Fig. 2, \emptyset 0.81, Sn/Cu	1.85	3.70	90	40	2.10	9.25	12.6	0.08	0.19
UBF RX90250 Fig. 2, \emptyset 0.81, Sn/Cu	2.50	5.00	90	40	2.50	12.50	15.6	0.05	0.13
UBF RX90300 Fig. 2, \emptyset 0.81, Sn/Cu	3.00	6.00	90	40	2.80	15.00	19.8	0.04	0.10
UBF RX90375 Fig. 2, \emptyset 0.81, Sn/Cu	3.75	7.50	90	40	3.20	18.75	24.0	0.03	0.08

I_{hold} : Hold current is the maximum current that **UBF Fuse** can pass through without interruption at 20°C unless otherwise specified.

I_{trip} : Trip current is the minimum current that will switch the device from low resistance state to high resistance state at 20°C unless specified.

V_{max} : The maximum voltage device can withstand without damage at rated current.

I_{max} : The maximum current device can withstand without damage at rated voltage.

P_d : The power dissipated from device when in the tripped state at 20°C unless otherwise specified.

R_{min} : The minimum resistance of device as received from the factory at 20°C unless otherwise specified.

R_{max} : The maximum resistance of device as received from the factory at 20°C unless otherwise specified.

R_{1max} : The maximum resistance of device when measured one hour post trip at 20°C unless otherwise specified.

Max. Time-to-trip: The maximum time for device to trip at specified current ratings at 20°C unless otherwise specified.

Environmental Characteristics

Test	Test Conditions	Resistance Change
Passive Aging	+85°C, 1000 hours	±5% typical resistance change
Humidity Aging	+85°C, 85% R.H., 7 days	±5% typical resistance change
Thermal Shock	+85°C to -40°C, 10 times	±5% typical resistance change
	MIL-STD-202, Method 107G	
Vibration	MIL-STD-883C, Condition A	No change
Solvent resistance	MIL-STD-202, Method 215	No change

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Dimensions

Part No	A	B	C	D	E	
	Max.	Max.	Max.	Min.	Max.	
UBF RX90005	7.4	12.7	4.3	5.8	7.6	3.0
UBF RX60010	7.4	12.7	4.3	5.8	7.6	3.0
UBF RX90015	7.4	12.7	4.3	5.8	7.6	3.0
UBF RX60017	7.4	12.7	4.3	5.8	7.6	3.0
UBF RX60020	7.4	11.7	4.3	5.8	7.6	3.0
UBF RX60025	7.4	12.7	4.3	5.8	7.6	3.0
UBF RX60030	7.4	13.0	4.3	5.8	7.6	3.0
UBF RX60035	7.4	12.7	4.3	5.8	7.6	3.0
UBF RX60040	7.6	13.5	4.3	5.8	7.6	3.0
UBF RX60050	7.9	13.7	4.3	5.8	7.6	3.0
UBF RX90055	9.7	14.0	4.3	5.8	7.6	3.0
UBF RX60065	9.7	14.5	4.3	5.8	7.6	3.0
UBF RX60075	10.4	15.2	4.3	5.8	7.6	3.0
UBF RX60090	11.7	15.8	4.3	5.8	7.6	3.0
UBF RX60110	13.0	18.0	4.3	5.8	7.6	3.0
UBF RX60135	14.5	19.6	4.3	5.8	7.6	3.0
UBF RX60160	16.3	21.3	4.3	5.8	7.6	3.0
UBF RX60185	17.8	22.9	4.3	5.8	7.6	3.0
UBF RX60250	21.3	26.4	9.4	10.9	7.6	3.0
UBF RX60300	24.9	30.0	9.4	10.9	7.6	3.0
UBF RX60375	28.5	33.5	9.4	10.9	7.6	3.0

NOTE: All drawings are not in scale and layout may vary.

All parts dimension is in millimeter unless otherwise specified.

Radial-leaded parts are not designed for reflow soldering.

Lead Materials: UBFRX90010 – 040, Tin plated Copper Steel, 0.51mm / 0.205mm² / 24 AWG
 UBFRX90050 – 090, Tin plated Copper, 0.51mm / 0.205mm² / 24 AWG
 UBFRX90110 – 375, Tin plated Copper, 0.81mm / 0.52mm² / 20 AWG

Insulation Materials: Cured, flame-retardant epoxy polymer that meets UL94V-0

Agency Approval: UL File Number E 119550
 c-UL File Number E 119550
 TUV File Number Pending

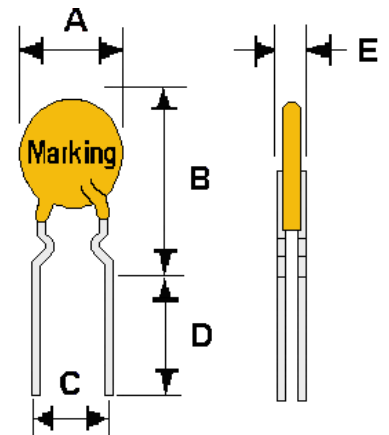


Figure 1

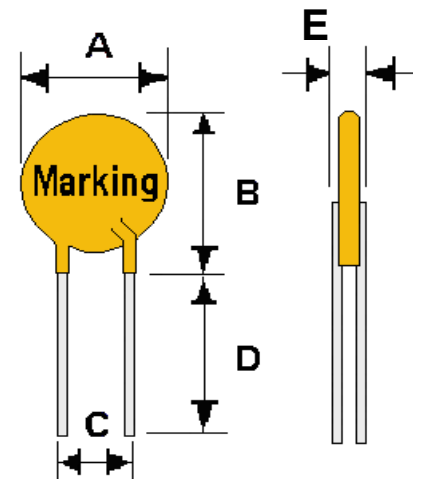
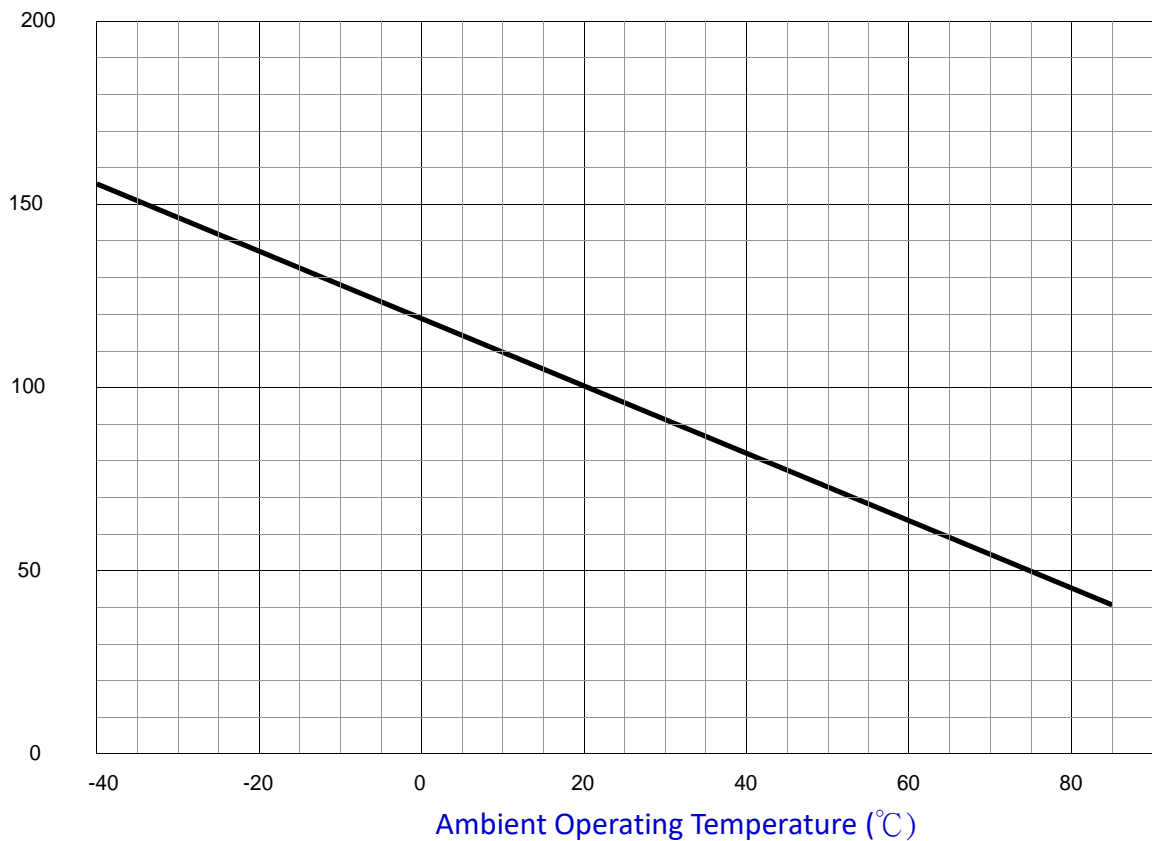


Figure 2

UBFRX90 Series (90V)

Typical Thermal Derating Chart – I_{hold} (A)

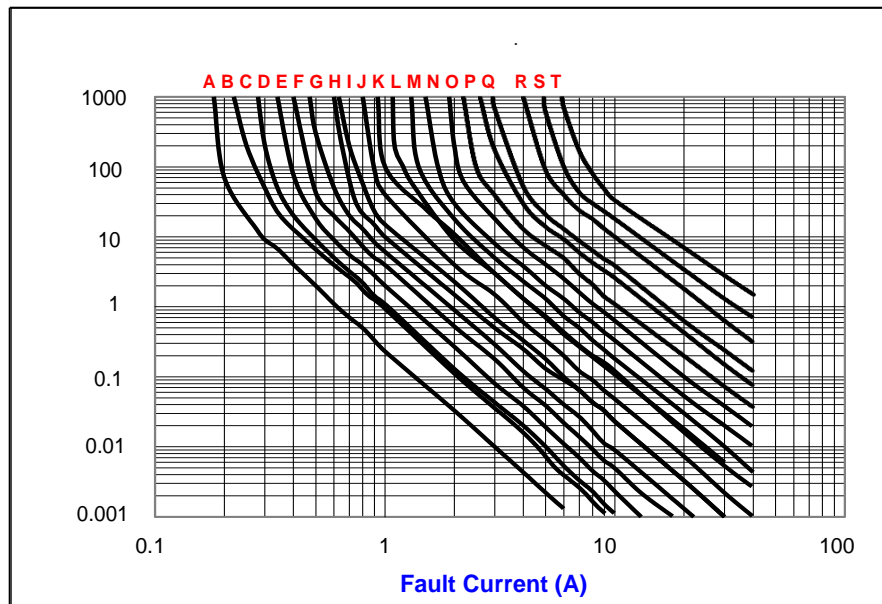
Part No	-40	-20	0	20	40	60	85
UBF RX90010	0.16	0.14	0.11	0.10	0.08	0.067	0.04
UBF RX90015	0.16	0.14	0.11	0.10	0.08	0.067	0.04
UBF RX90017	0.26	0.23	0.21	0.17	0.14	0.11	0.07
UBF RX90020	0.31	0.27	0.24	0.20	0.16	0.13	0.08
UBF RX90025	0.39	0.34	0.30	0.25	0.20	0.16	0.10
UBF RX90030	0.47	0.41	0.36	0.30	0.24	0.20	0.12
UBF RX90035	0.62	0.54	0.48	0.40	0.32	0.25	0.16
UBF RX90040	0.62	0.54	0.48	0.40	0.32	0.25	0.16
UBF RX90050	0.78	0.68	0.60	0.50	0.41	0.32	0.20
UBF RX90055	0.78	0.68	0.60	0.50	0.41	0.32	0.20
UBF RX90065	1.01	0.88	0.77	0.65	0.53	0.41	0.26
UBF RX90075	1.16	1.02	0.89	0.75	0.61	0.47	0.30
UBF RX90090	1.40	1.22	1.07	0.90	0.73	0.57	0.36
UBF RX69110	1.71	1.50	1.31	1.10	0.89	0.69	0.44
UBF RX90135	2.09	1.84	1.61	1.35	1.09	0.85	0.54
UBF RX90160	2.48	2.18	1.90	1.60	1.30	1.01	0.64
UBF RX90185	2.87	2.52	2.20	1.85	1.50	1.17	0.74
UBF RX90250	3.88	3.40	2.98	2.50	2.03	1.58	1.00
UBF RX90300	4.65	4.08	3.57	3.00	2.43	1.89	1.20
UBF RX90375	5.81	5.10	4.46	3.75	3.04	2.36	1.50



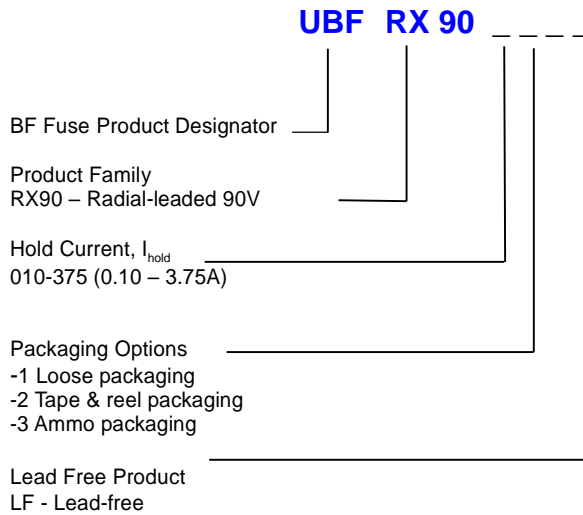
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Typical Time To Trip Curve at 20°C

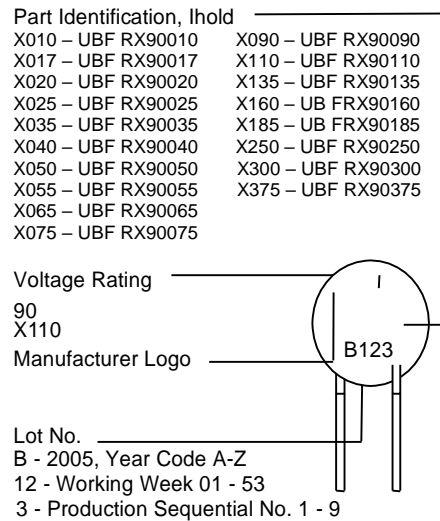
- A UBF RX90010
- B UBF RX90015
- C UBF RX90017
- D UBF RX90020
- E UBF RX90025
- F UBF RX90030
- G UBF RX90035
- H UBF RX90040
- I UBF RX90050
- J UBF RX90055
- K UBF RX90065
- L UBF RX90075
- M UBF RX90090
- N UBF RX90110
- O UBF RX90135
- P UBF RX90160
- Q UBF RX90185
- R UBF RX90250
- S UBF RX90300
- T UBF RX90375



Ordering Information



Part Marking



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Packaging Information

Part No	-1 Loose Pack Quantity	-2 Tape & Reel Quantity	-3 Ammo Pack Quantity
UBF RX90010	500	3000	2000
UBF RX90015	500	3000	2000
UBF RX90017	500	3000	2000
UBF RX60020	500	3000	2000
UBF RX90025	500	3000	2000
UBF RX90035	500	3000	2000
UBF RX90040	500	3000	2000
UBF RX90050	500	3000	2000
UBF RX90055	500	3000	2000
UBF RX90065	500	3000	2000
UBF RX90075	500	3000	2000
UBF RX60090	500	3000	2000
UBF RX60110	500	1500	1000
UBF RX90135	500	1500	1000
UBF RX90160	500	1500	1000
UBF RX60185	500	1500	1000
UBF RX90250	250	1000	1000
UBF RX90300	250	1000	1000
UBF RX90375	250	Not available	Not available

