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, Ø0.51, Sn/CuFe	0.10	0.20	90	40	0.38	0.50	4.0	2.50	7.50
UBF RX90015 Fig. 1, Ø0.51, Sn/CuFe	0.10	0.35	90	40	0.70	0.50	10.0	2.50	7.50
UBF RX90017 Fig. 1, Ø0.51, Sn/CuFe	0.17	0.34	90	40	0.48	0.85	3.0	2.00	8.00
UBF RX90020 Fig. 1, Ø0.51, Sn/CuFe	0.20	0.40	90	40	0.41	1.00	2.2	1.83	4.40
UBF RX90025 Fig. 1, Ø0.51, Sn/CuFe	0.25	0.50	90	40	0.45	1.25	2.5	1.25	3.00
UBF RX90030 Fig. 1, Ø0.51, Sn/CuFe	0.30	0.60	90	40	0.49	1.50	3.0	0.88	2.10
UBF RX90035 Fig. 1, Ø0.51, Sn/CuFe	0.35	0.75	90	40	1.30	1.30	10.0	0.70	2.50
UBF RX90040 Fig. 1, Ø0.51, Sn/CuFe	0.40	0.80	90	40	0.56	2.00	3.8	0.55	1.29
UBF RX90050 Fig. 1, Ø0.51, Sn/Cu	0.50	1.00	90	40	0.77	2.50	4.0	0.50	1.17
UBF RX90055 Fig. 1, Ø0.51, Sn/Cu	0.50	1.20	90	40	1.50	2.50	10.0	0.40	1.17
UBF RX90065 Fig. 1, Ø0.51, Sn/Cu	0.65	1.30	90	40	0.88	3.25	5.3	0.31	0.72
UBF RX90075 Fig. 1, Ø0.51, Sn/Cu	0.75	1.50	90	40	0.92	3.75	6.3	0.25	0.60
UBF RX90090 Fig. 1, Ø0.51, Sn/Cu	0.90	1.80	90	40	0.99	4.50	7.2	0.20	0.47
UBF RX90110 Fig. 2, Ø0.81, Sn/Cu	1.10	2.20	90	40	1.50	5.50	8.2	0.15	0.38
UBF RX90135 Fig. 2, Ø0.81, Sn/Cu	1.35	2.70	90	40	1.70	6.75	9.6	0.12	0.30
UBF RX90160 Fig. 2, Ø0.81, Sn/Cu	1.60	3.20	90	40	1.90	8.00	11.4	0.09	0.22
UBF RX90185 Fig. 2, Ø0.81, Sn/Cu	1.85	3.70	90	40	2.10	9.25	12.6	0.08	0.19
UBF RX90250 Fig. 2, Ø0.81, Sn/Cu	2.50	5.00	90	40	2.50	12.50	15.6	0.05	0.13
UBF RX90300 Fig. 2, Ø0.81, Sn/Cu	3.00	6.00	90	40	2.80	15.00	19.8	0.04	0.10
UBF RX90375 Fig. 2, Ø0.81, 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 MIL-STD-202, Method 107G	±5% typical resistance change
Vibration	MIL-STD-883C, Condition A	No change
Solvent resistance	MIL-STD-202, Method 215	No change

UBFRX90 Series (90V)

Dimensions

	A	B	C		D	E
Part No	**Max.**	**Max.**	**Max.**	**Min.**	**Max.**	**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

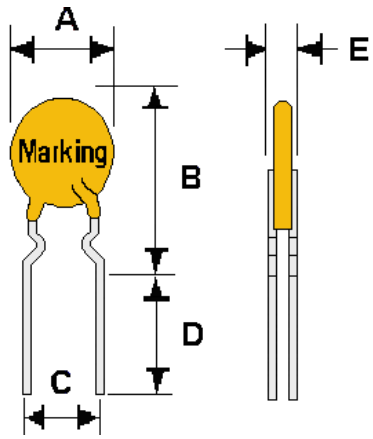


Figure 1

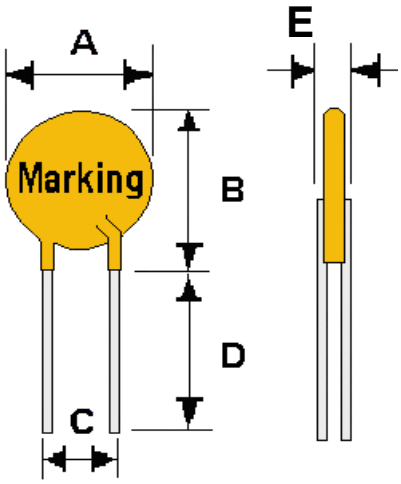


Figure 2

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 / 0.205mm^2/ 24 AWG UBFRX90050 – 090, Tin plated Copper, 0.51mm / 0.205mm^2/ 24 AWG UBFRX90110 – 375, Tin plated Copper, 0.81mm / 0.52mm^2 / 20 AWG

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

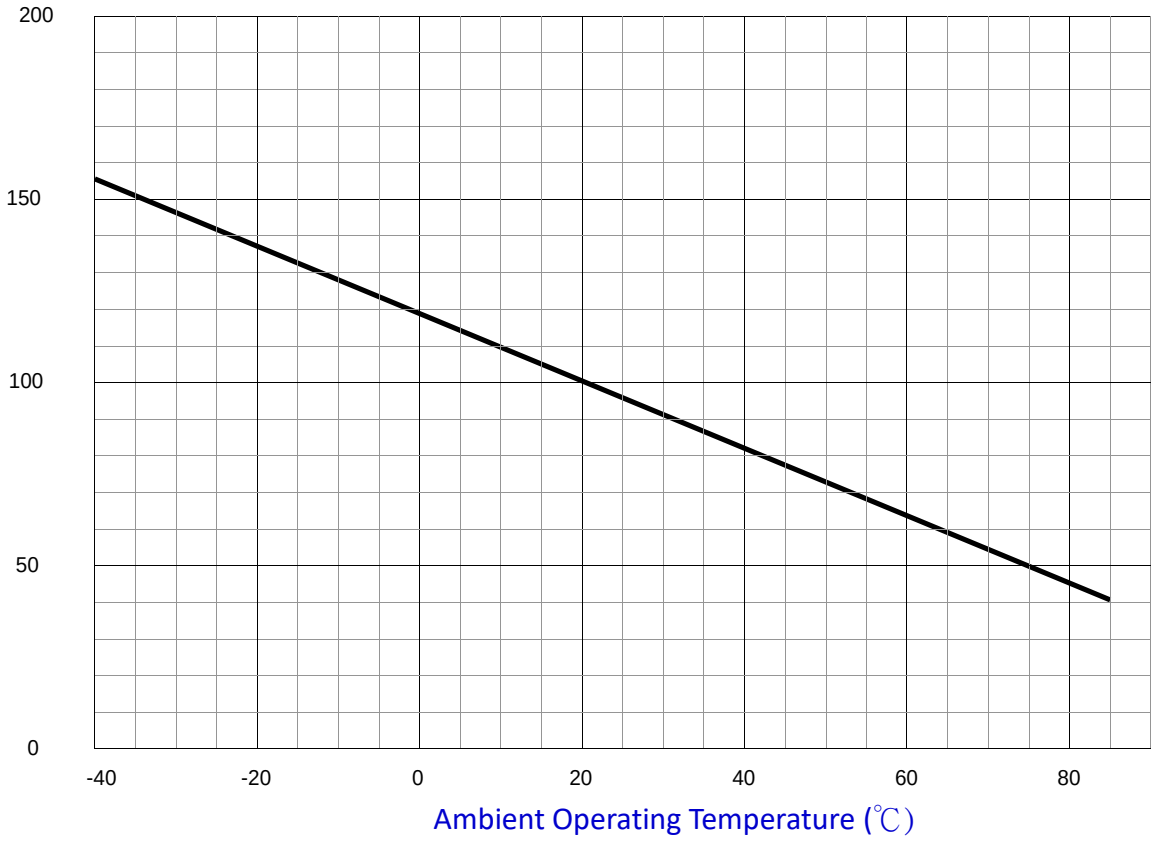
Agency Approval:

UL File Number	E 119550
c-UL File Number	E 119550
TUV File Number	Pending

UBFRX90 Series (90V)

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

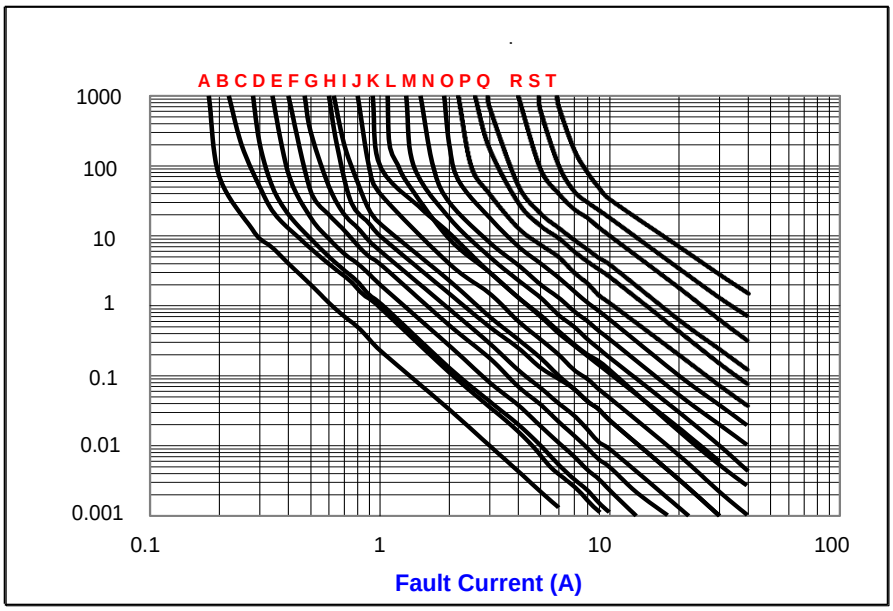
Part No	-40	-20	0	20	40	60	85
UBF RX90010	0.16	0.14	0.11	0.10	0.08	0.067	0.04
UBF RX90015	0.16	0.14	0.11	0.10	0.08	0.067	0.04
UBF RX90017	0.26	0.23	0.21	0.17	0.14	0.11	0.07
UBF RX90020	0.31	0.27	0.24	0.20	0.16	0.13	0.08
UBF RX90025	0.39	0.34	0.30	0.25	0.20	0.16	0.10
UBF RX90030	0.47	0.41	0.36	0.30	0.24	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



UBFRX90 Series (90V)

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

UBF RX 90 _ _ _ _

BF Fuse Product Designator

Product Family
RX90 – Radial-leaded 90V

Hold Current, I_{hold}
010-375 (0.10 – 3.75A)

Packaging Options
-1 Loose packaging
-2 Tape & reel packaging
-3 Ammo packaging

Lead Free Product
LF - Lead-free

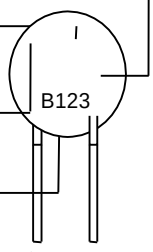
Part Marking

Part Identification, Ihold

X010 – UBF RX90010	X090 – UBF RX90090
X017 – UBF RX90017	X110 – UBF RX90110
X020 – UBF RX90020	X135 – UBF RX90135
X025 – UBF RX90025	X160 – UB FRX90160
X035 – UBF RX90035	X185 – UB FRX90185
X040 – UBF RX90040	X250 – UBF RX90250
X050 – UBF RX90050	X300 – UBF RX90300
X055 – UBF RX90055	X375 – UBF RX90375
X065 – UBF RX90065	
X075 – UBF RX90075	

Voltage Rating
90
X110

Manufacturer Logo



Lot No.
B - 2005, Year Code A-Z
12 - Working Week 01 - 53
3 - Production Sequential No. 1 - 9

UBFRX90 Series (90V)

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