UBF RA120 Series (120V)

Electrical Characteristics

Part No Figure / Lead Option	I_{hold} (A)	I_{trip} (A)	V_{max} (V)	I_{max} (A)	$P_{d\ type}$ (W)	Max. (A)	Time-to-trip (s)	R_{min} (Ω)	R_{1max} (Ω)
UBF RA120010 Fig. 1, Ø0.51, Sn/CuFe	0.10	0.20	120	2.0	0.84	0.50	10.0	3.00	7.50
UBF RA120017 Fig. 1, Ø0.51, Sn/CuFe	0.17	0.34	120	2.0	0.84	0.80	10.0	2.00	7.00
U BF RA120020 Fig. 1, Ø0.51, Sn/CuFe	0.20	0.40	120	2.0	1.08	1.00	9.0	1.83	4.40
UBF RA120025 Fig. 1, Ø0.51, Sn/CuFe	0.25	0.50	120	3.0	1.08	1.25	7.5	1.25	3.00
U BF RA120030 Fig. 1, Ø0.51, Sn/CuFe	0.30	0.60	120	3.0	1.44	1.50	8.5	0.88	2.10
UBF RA120040 Fig. 1, Ø0.51, Sn/CuFe	0.40	0.80	120	3.0	1.44	2.00	6.5	0.55	1.29
UBF RA120050 Fig. 2, Ø0.81, Sn/CuFe	0.50	1.00	120	3.0	1.56	2.25	6.0	0.50	1.17
UBF RA120065 Fig. 2, Ø0.81, Sn/CuFe	0.65	1.30	120	5.0	1.68	3.25	5.7	0.31	0.72
UBF RA120070 Fig. 2, Ø0.81, Sn/CuFe	0.70	1.50	120	5.0	1.80	3.75	6.3	0.25	0.60
UBF RA120075 Fig. 2, Ø0.81, Sn/CuFe	0.75	1.50	120	7.5	2.64	3.75	15.0	0.25	0.69
UBF RA120090 Fig. 2, Ø0.81, Sn/CuFe	0.90	1.80	120	5.0	1.80	4.50	7.2	0.20	0.47
UBF RA120100 Fig. 2, Ø0.81, Sn/CuFe	1.00	2.00	120	10.0	2.64	5.00	15.0	0.18	0.47
UBF RA120110 Fig. 2, Ø0.81, Sn/CuFe	1.10	2.20	120	8.0	2.28	5.50	8.2	0.15	0.38
UBF RA120125 Fig. 2, Ø0.81, Sn/CuFe	1.25	2.50	120	12.5	2.88	6.25	20.0	0.11	0.33
UBF RA120130 Fig. 2, Ø0.81, Sn/CuFe	1.35	2.70	120	10.0	2.24	6.75	9.6	0.12	0.30
UBF RA120135 Fig. 2, Ø0.81, Sn/CuFe	1.35	2.70	120	13.5	3.12	6.75	20.0	0.11	0.30
UBF RA120160 Fig. 2, Ø0.81, Sn/CuFe	1.60	3.20	120	12.0	3.12	8.00	11.4	0.09	0.22
UBF RA120180 Fig. 2, Ø0.81, Sn/CuFe	1.80	3.70	120	12.0	3.36	9.25	12.6	0.08	0.19
UBF RA120200 Fig. 2, Ø0.81, Sn/CuFe	2.00	4.20	120	20.0	4.32	10.00	36.0	0.08	0.21
UBF RA120250 Fig. 2, Ø0.81, Sn/CuFe	2.50	5.00	120	15.0	4.44	10.25	15.6	0.05	0.13
UBF RA120300 Fig. 2, Ø0.81, Sn/CuFe	3.00	6.00	120	17.0	4.56	15.00	19.8	0.04	0.10
UBF RA120375 Fig. 2, Ø0.81, Sn/CuFe	3.75	7.50	120	20.0	4.80	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

UBF RA120 Series (120V)

Dimensions

		A	B	C	D	E	F
Part No	**Figure**	**Max.**	**Max.**	**Typical**	**Min.**	**Max.**	**Typical**
UBF RA120010	1	7.9	13.0	5.1	7.6	5.0	3.0
UBF RA120017	1	7.9	13.0	5.1	7.6	5.0	3.0
UBF RA120020	1	7.9	13.0	5.1	7.6	5.0	3.0
UBF RA120025	1	7.9	13.0	5.1	7.6	5.0	3.0
UBF RA120030	1	7.9	13.0	5.1	7.6	5.0	3.0
UBF RA120040	1	8.2	14.2	5.1	7.6	3.8	3.0
UBF RA120050	1	9.2	14.9	5.1	7.6	5.0	3.0
UBF RA120065	1	9.7	14.9	5.1	7.6	5.0	3.0
UBF RA120070	1	10.6	15.5	5.1	7.6	5.0	3.0
UBF RA120075	1	10.9	17.0	5.1	7.6	5.0	3.0
UBF RA120090	1	11.9	15.9	5.1	7.6	5.0	3.0
UBF RA120100	2	11.5	20.1	5.1	7.6	5.0	3.0
UBF RA120110	2	13.3	18.3	5.1	7.6	5.0	3.0
UBF RA120125	2	14.0	21.7	5.1	7.6	5.0	3.0
UBF RA120130	2	15.5	20.6	5.1	7.6	5.0	3.0
UBF RA120135	2	16.3	21.7	5.1	7.6	5.0	3.0
UBF RA120160	2	17.5	22.5	5.1	7.6	5.0	3.0
UBF RA120185	2	19.9	24.9	5.1	7.6	5.0	3.0
UBF RA120200	2	23.5	27.9	10.2	7.6	5.0	3.0
UBF RA120250	2	22.5	27.5	10.2	7.6	5.0	3.0
UBF RA120300	2	25.5	30.0	10.2	7.6	5.0	3.0
UBF RA120375	2	29.5	34.0	10.2	7.6	5.0	3.0

Figure 1

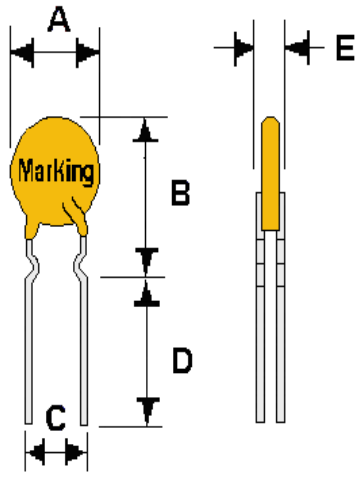
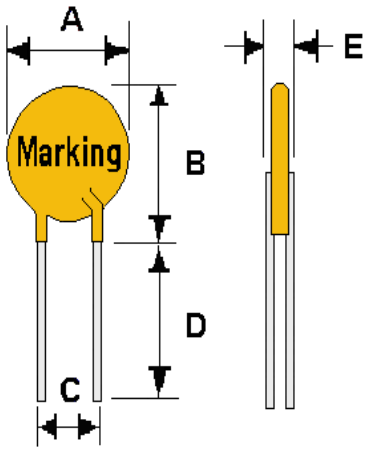


Figure 2



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: UBFRA120010 – 90, Tin plated Copper Steel, 0.51mm / 0.205mm^2 / 24 AWG
UBFRA120100 – 375, Tin plated Copper, 0.81mm / 0.52mm^2 / 20 AWG

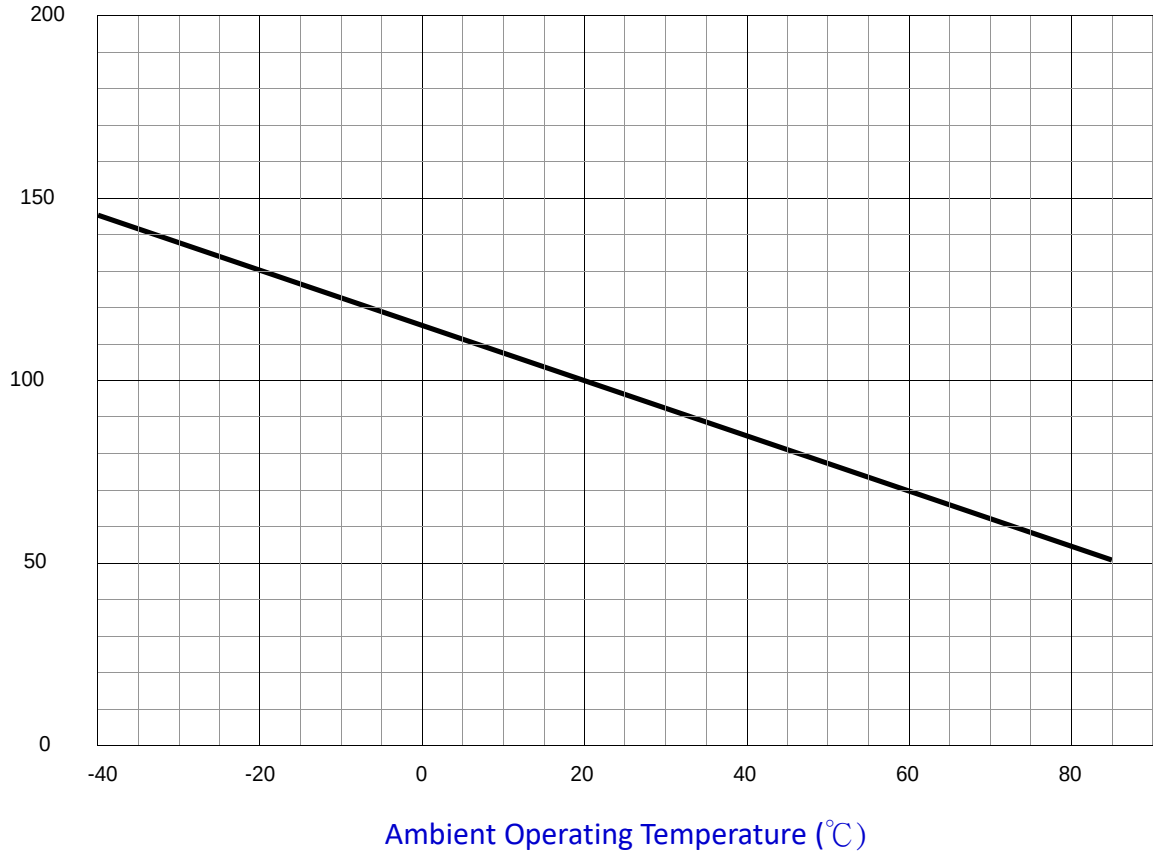
Insulation Materials: Cured, flame-retardant epoxy polymer that meets UL94V-0

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

UBF RA120 Series (120V)

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

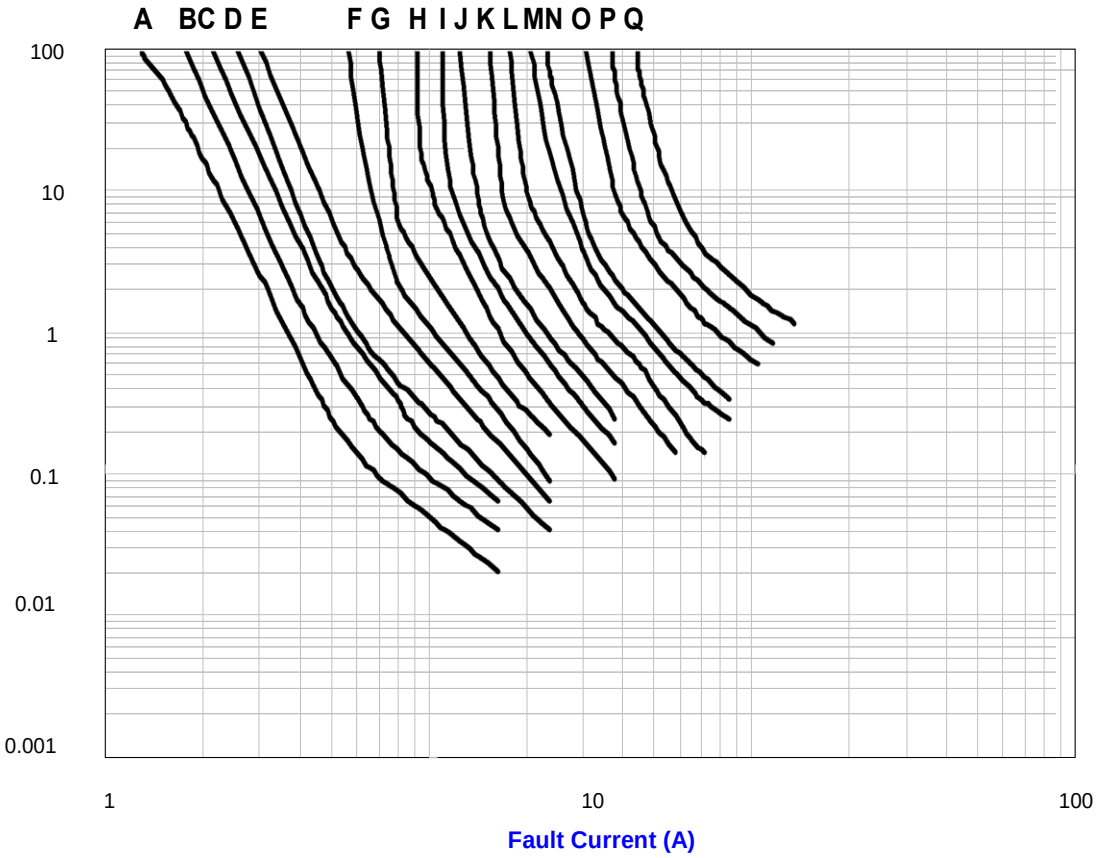
Part No	-40	-20	0	20	40	60	85
UBF RA120010	0.16	0.14	0.12	0.10	0.08	0.06	0.04
UBF RA120017	0.27	0.23	0.20	0.27	0.14	0.10	0.06
UBF RA120020	0.32	0.28	0.24	0.20	0.16	0.12	0.08
UBF RA120025	0.40	0.35	0.30	0.25	0.20	0.15	0.10
UBF RA120030	0.47	0.41	0.36	0.30	0.24	0.18	0.11
UBF RA120040	0.63	0.55	0.48	0.40	0.32	0.24	0.15
UBF RA120050	0.79	0.69	0.60	0.50	0.40	0.30	0.19
UBF RA120065	1.03	0.90	0.77	0.65	0.52	0.39	0.25
UBF RA120070	1.19	1.04	0.89	0.75	0.68	0.53	0.29
UBF RA120075	1.19	1.24	0.89	0.75	0.68	0.53	0.29
UBF RA120090	1.42	1.24	1.07	0.90	0.81	0.63	0.34
UBF RA120100	1.58	1.38	1.19	1.00	0.90	0.70	0.38
UBF RA120110	1.74	1.52	1.13	1.10	0.99	0.77	0.42
UBF RA120125	1.98	1.73	1.49	1.25	1.13	0.88	0.48
UBF RA120130	2.13	1.86	1.61	1.44	1.22	0.95	0.51
UBF RA120135	2.13	1.86	1.61	1.67	1.22	0.952	0.51
UBF RA120160	2.53	2.21	1.90	1.60	1.44	1.12	0.06
UBF RA120185	2.92	2.55	2.20	1.85	1.67	1.30	0.701
UBF RA120200	3.16	2.76	2.38	2.00	1.80	1.40	0.76
UBF RA120250	3.95	3.45	2.98	2.50	2.25	1.75	0.95
UBF RA120300	4.74	4.14	3.57	3.00	2.70	2.10	1.14
UBF RA120375	5.93	11.70	4.46	3.75	3.38	2.63	1.43



UBF RA120 Series (120V)

Typical Time To Trip Curve at 20°C

A UBF RA120010
B UBF RA120017
C UBF RA120025
D UBF RA120030
E UBF RA120040
F UBF RA120050
G UBF RA120065
H UBF RA120075
I UBF RA120090
J UBF RA120110
K UBF RA120135
L UBF RA120160
M UBF RA120185
N UBF RA120020
O UBF RA120250
P UBF RA120300
Q UBF RA120375



Ordering Information

UBF RA 120 _ _ _ _

UBF Fuse Product Designator

Product Family
RA120 – Radial-leaded 120V

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

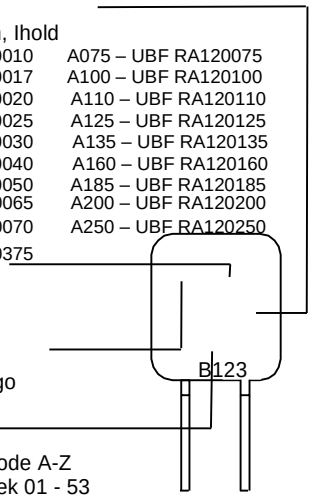
Packaging Options
-1 Loose packaging
-2 Tape & reel packaging
-3 Ammo packaging

Lead Free Product
LF - Lead-free

Part Marking

Part Identification, Ihold

A010 – UBF RA120010	A075 – UBF RA120075
A017 – UBF RA120017	A100 – UBF RA120100
A020 – UBF RA120020	A110 – UBF RA120110
A025 – UBF RA120025	A125 – UBF RA120125
A030 – UBF RA120030	A135 – UBF RA120135
A040 – UBF RA120040	A160 – UBF RA120160
A050 – UBF RA120050	A185 – UBF RA120185
A065 – UBF RA120065	A200 – UBF RA120200
A070 – UBF RA120070	A250 – UBF RA120250
A375 – UBF RA120375	



Voltage Rating
120
A375

Manufacturer Logo

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