

UBF Series RT33 (33V)

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 RT33050 Fig. 1, $\emptyset 0.51$, Sn/CuFe	0.50	1.00	33	40	0.67	5.0	2.25	0.140	0.048
UBF RT33075 Fig. 1, $\emptyset 0.51$, Sn/CuFe	0.75	1.50	33	40	0.71	4.0	3.75	0.115	0.368
UBF RT33090 Fig. 1, $\emptyset 0.51$, Sn/CuFe	0.90	1.80	33	40	0.74	3.5	4.50	0.090	0.228
UBF RT33120 Fig. 1, $\emptyset 0.51$, Sn/CuFe	1.20	2.30	33	40	0.78	3.5	6.00	0.074	0.180
UBF RT33135 Fig. 1, $\emptyset 0.51$, Sn/CuFe	1.35	2.50	33	40	0.84	4.5	6.75	0.059	0.143
UBF RT33160 Fig. 1, $\emptyset 0.51$, Sn/CuFe	1.60	2.75	33	40	0.86	4.5	8.00	0.041	0.131
UBF RT33190 Fig. 2, $\emptyset 0.81$, Sn/Cu	1.90	3.00	33	40	0.90	3.5	9.50	0.045	0.092
UBF RT33220 Fig. 2, $\emptyset 0.81$, Sn/Cu	2.20	3.50	33	40	0.95	6.5	11.00	0.025	0.080
UBF RT33250 Fig. 2, $\emptyset 0.81$, Sn/Cu	2.50	4.00	33	40	0.99	8.0	12.50	0.020	0.064

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

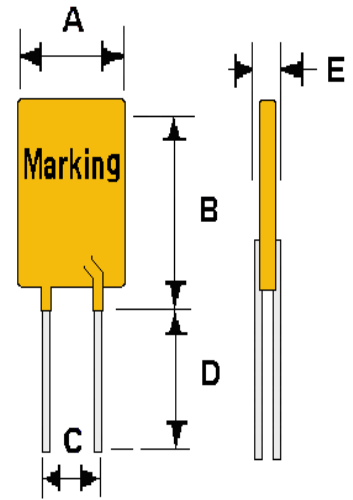
Test	Test Conditions	Resistance Change
Passive Aging	+85°C, 1000 hours	+5% typical resistance change
Humidity Aging	+85°C, 85% R.H., 7 days	±5% typical resistance change
Thermal Shock	+85°C to -40°C, 10 times MIL-STD-202, Method 107G	±5% typical resistance change
Vibration	MIL-STD-883C, Condition A	No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

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Dimensions

	A	B	C	D	E	F
Part No	Max.	Max.	Typical	Min.	Max.	Typical
UBF RT33050	7.4	12.2	5.1	7.6	3.0	1.1
UBF RT33075	7.4	12.2	5.1	7.6	3.0	1.1
UBF RT33090	7.4	12.2	5.1	7.6	3.0	1.1
UBF RT33120	7.4	12.2	5.1	7.6	3.0	1.1
UBF RT33135	7.4	14.2	5.1	7.6	3.0	1.1
UBF RT33135	7.4	14.0	5.1	7.6	3.0	1.1
UBF RT33190	9.0	13.5	5.1	7.6	3.0	1.1
UBF RT33220	10.0	17.5	5.1	7.6	3.0	1.1
UBF RT33250	10.0	19.5	5.1	7.6	3.0	1.1

Figure 1



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: UBF RT33050 – 250, Tin plated Copper Steel, 0.51mm / 0.205mm² / 24 AWG

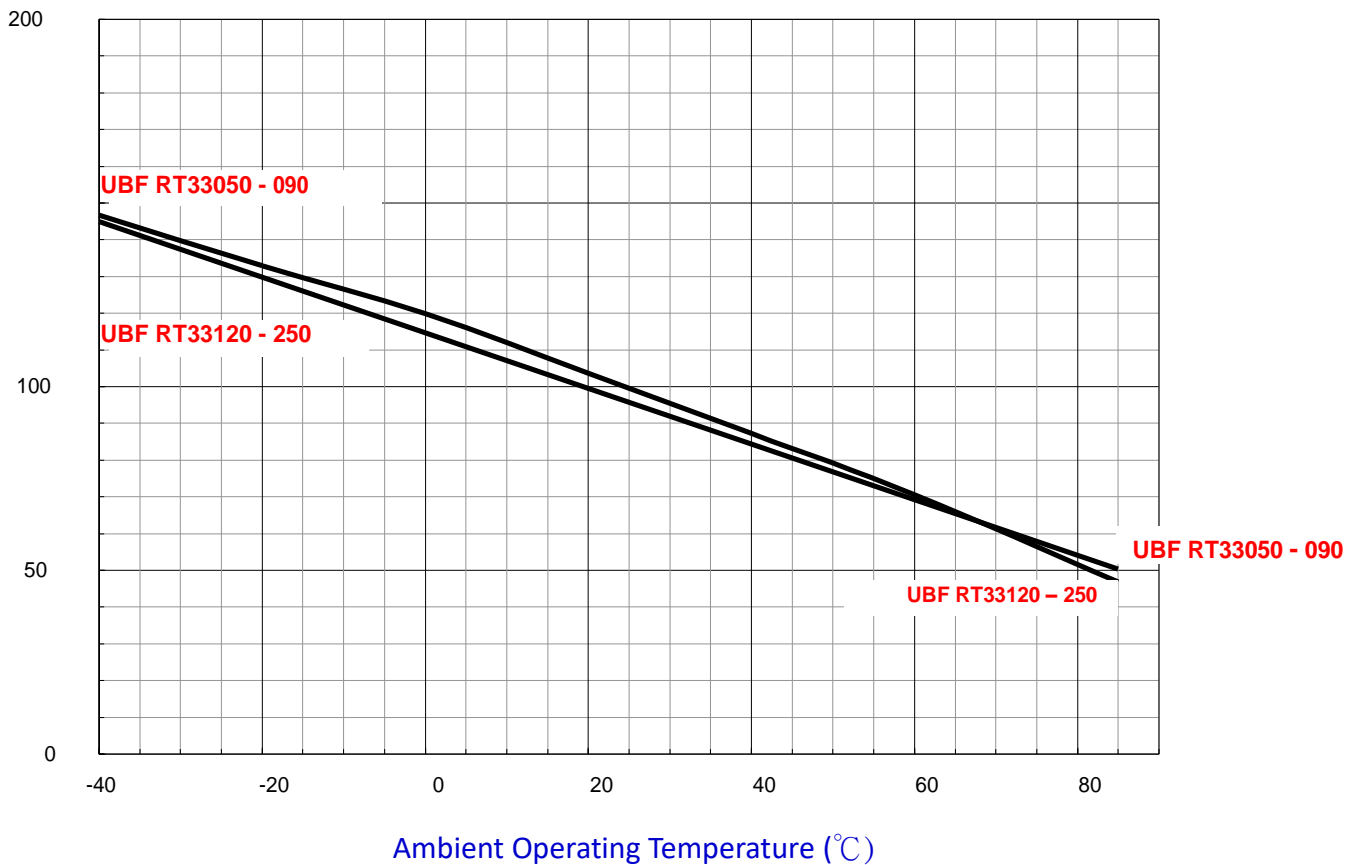
Insulation Materials: Cured, flame-retardant epoxy polymer that meets UL94V-0

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

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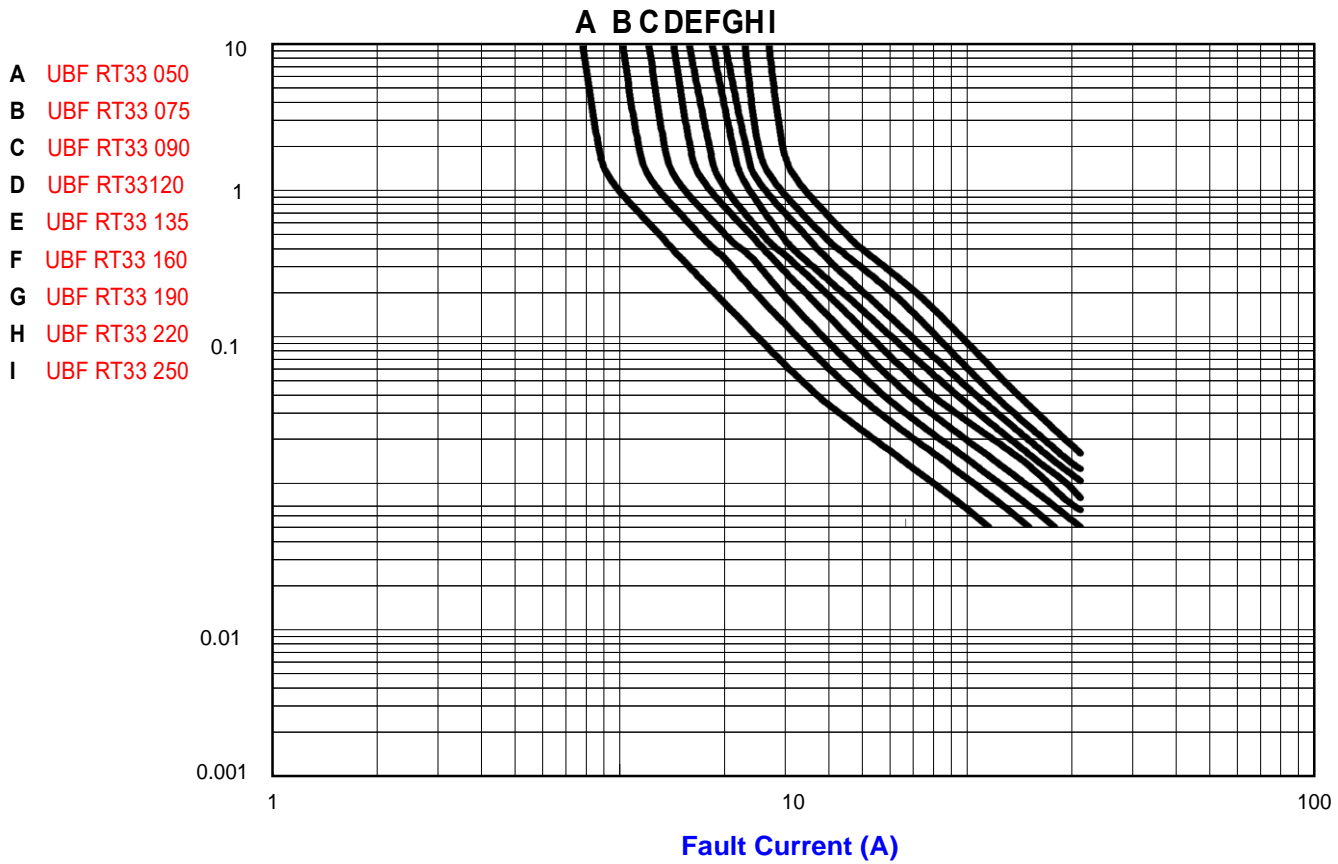
Typical Thermal Derating Chart – I_{hold} (A)

Part No	-40	-20	0	20	40	60	85
UBF RT33050	0.74	0.68	0.60	0.50	0.45	0.39	0.32
UBF RT33075	1.11	1.01	0.90	0.75	0.68	0.59	0.48
UBF RT33090	1.33	1.22	1.08	0.90	0.81	0.70	0.58
UBF RT33120	1.78	1.62	1.62	1.35	1.22	0.94	0.77
UBF RT33135	2.00	1.82	1.62	1.35	1.22	1.05	0.86
UBF RT33160	2.37	2.16	1.92	1.60	1.44	1.25	1.02
UBF RT33190	2.81	2.57	2.28	1.90	1.71	1.48	1.22
UBF RT33220	3.26	2.97	2.64	2.20	1.98	1.72	1.41
UBF RT33250	3.70	3.38	3.00	2.50	2.25	1.95	1.60

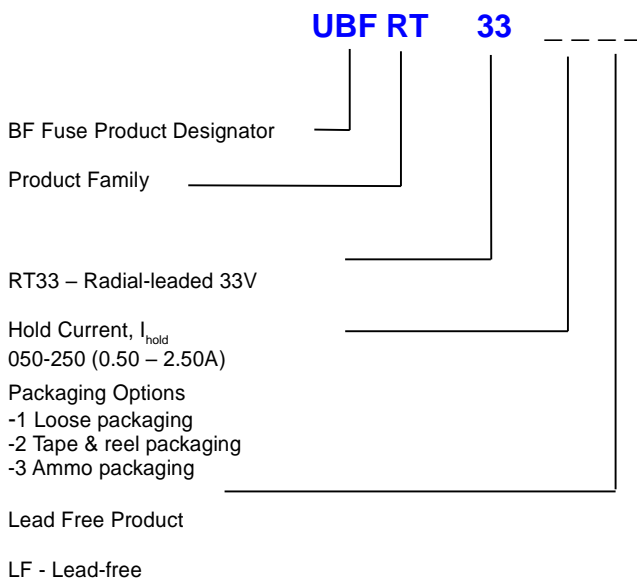


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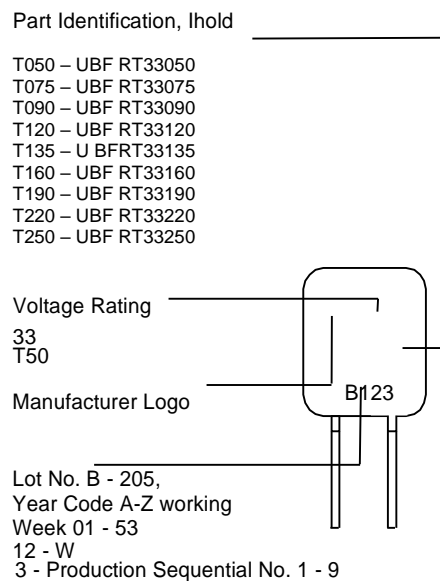
Typical Time To Trip Curve at 20°C



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 RT33050	500	3000	2000
UBF RT33075	500	3000	2000
UBF RT33090	500	3000	2000
UBF RT33120	500	3000	2000
UBF RT33135	500	2500	2000
UBF RT33160	500	2500	2000
UBF RT33190	500	2000	2000
UBF RT33220	500	2000	2000
UBF RT33250	500	1500	1500