

UBF SMD Series (1812)

Electrical Characteristics

Part No	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 SMD 010	0.10	0.30	60	10	0.8	8.00	0.020	1.600	15.00
UBF SMD 014	0.14	0.30	60	10	0.8	8.00	0.008	1.200	6.500
UBF SMD 020	0.20	0.40	30	10	0.8	8.00	0.020	0.800	5.000
UBF SMD 035	0.35	0.70	16	40	0.8	8.00	0.100	0.320	1.500
UBF SMD 050	0.50	1.00	16	40	0.8	8.00	0.150	0.150	1.000
UBF SMD 075	0.75	1.50	16	40	0.8	8.00	0.200	0.110	0.450
UBF SMD 075/24	0.75	1.50	24	40	1.0	8.00	0.200	0.110	0.290
UBF SMD 075/33	0.75	1.50	33	40	1.0	8.00	0.200	0.110	0.400
UBF SMD 110	1.10	2.20	8	100	0.8	8.00	0.300	0.040	0.210
UBF SMD 110/16	1.10	1.95	16	100	0.8	8.00	0.500	0.040	0.180
UBF SMD 110/24	1.10	2.20	24	100	1.0	8.00	0.500	0.060	0.200
UBF SMD 125	1.25	2.50	6	40	0.8	8.00	0.400	0.050	0.140
UBF SMD 150	1.50	3.00	8	100	0.8	8.00	0.500	0.040	0.110
UBF SMD 150/12	1.50	3.00	12	100	1.0	8.00	0.500	0.040	0.110
UBF SMD 150/24	1.50	3.00	24	100	1.0	8.00	0.150	0.040	0.120
UBF SMD 160	1.60	3.20	8	100	0.8	8.00	0.500	0.030	0.100
UBF SMD 160/12	1.60	3.20	12	100	1.0	8.00	1.000	0.030	0.100
UBF SMD 160/16	1.60	3.20	16	100	1.0	8.00	1.000	0.030	0.100
UBF SMD 200	2.00	3.50	8	100	1.0	8.00	2.000	0.020	0.070
UBF SMD 260	2.60	5.00	6	100	1.0	8.00	2.500	0.015	0.047
UBF SMD 260/13	2.60	5.00	13.2	100	1.3	8.00	5.000	0.015	0.050
UBF SMD 260/16	2.60	5.00	16	100	1.3	8.00	5.000	0.015	0.050
UBF SMD 300	3.00	5.00	6	100	1.0	8.00	4.000	0.012	0.040

I_{hold} : Hold current is the maximum current that **UB 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 reflow 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.

Dimensions

Part No	A		B		C		D		E	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
UBF SMD	4.37	4.37	3.07	3.41	0.60	0.62	0.30	--	0.25	--

NOTE: All drawings are not in scale and layout may vary. All parts dimension is in millimeter unless otherwise specified.

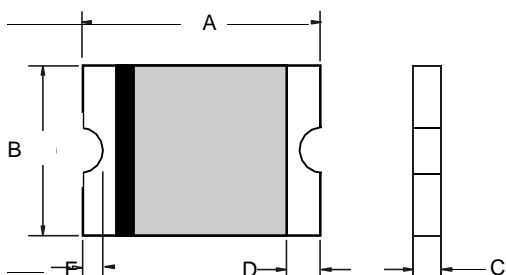
Terminal material is Tin (Sn) plated Copper (Cu).

Packaging: 2000 pcs per reel

Agency Approval: UL File Number E 119550

c-UL File Number E 119550

TUV File Number Pending



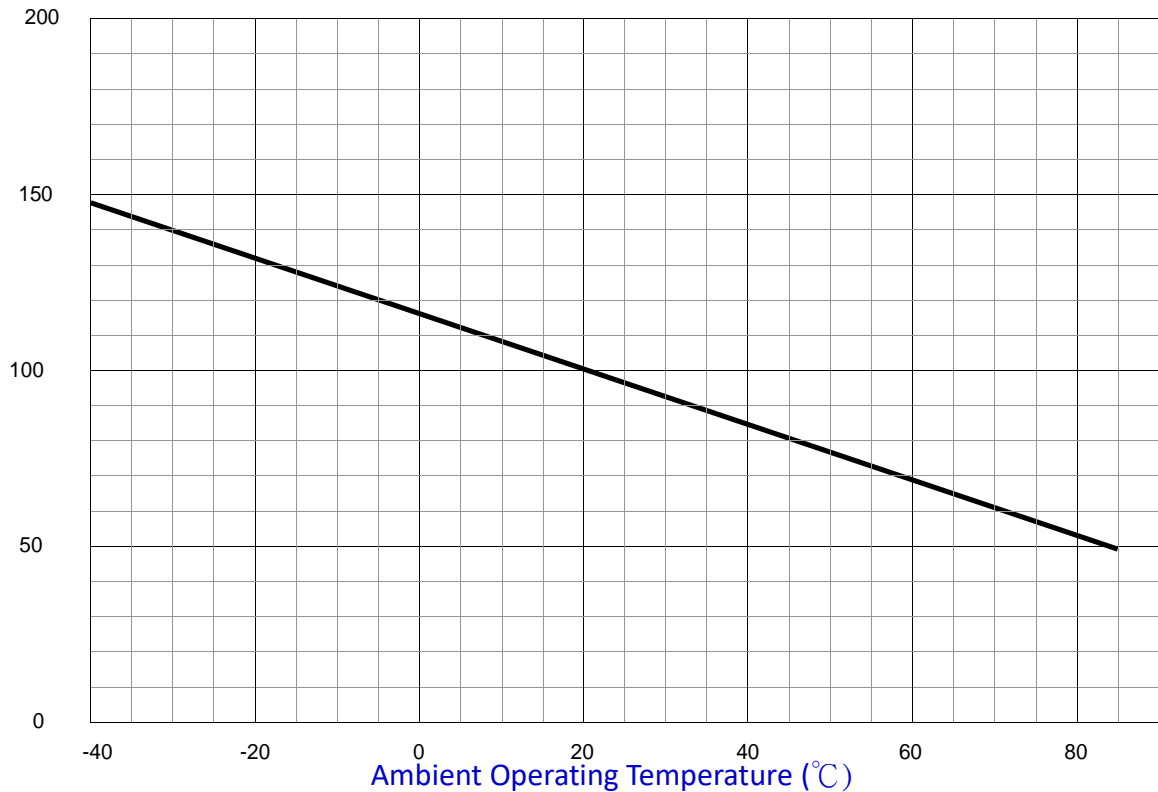
Top and Bottom

Side View

UBF SMD Series (1812)

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

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

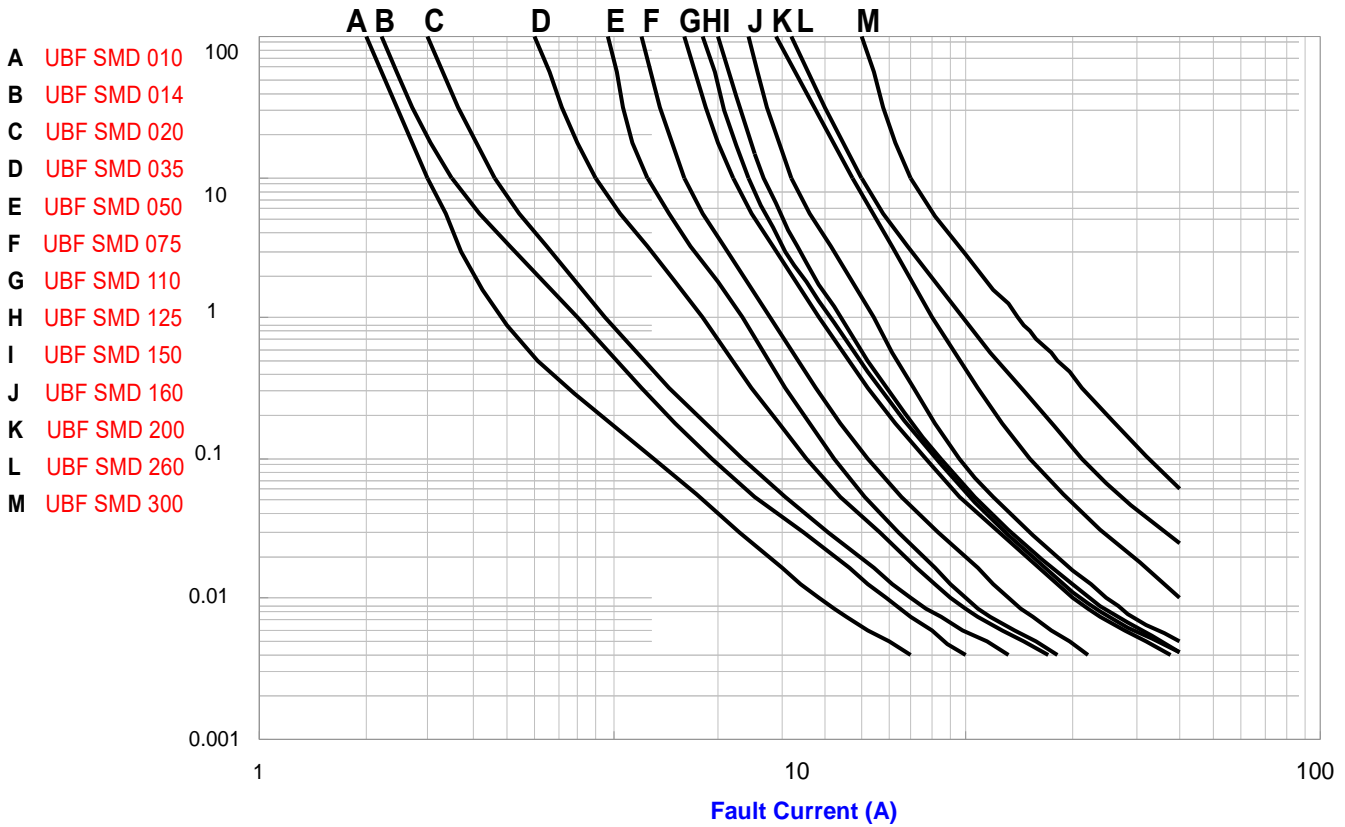


Environmental Characteristics

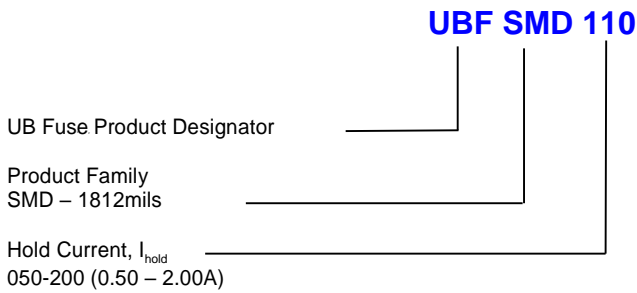
Part No	-40	-20	0	25	40	60	85
UB SMD050	0.76	0.67	0.55	0.50	0.45	0.35	0.23
UB SMD075	1.10	0.99	0.87	0.75	0.63	0.49	0.35
UB SMD110	1.60	1.45	1.28	1.10	0.92	0.71	0.52
UB SMD150	2.30	2.05	1.77	1.50	1.23	0.95	0.61

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Typical Time To Trip Curve at 20°C



Ordering Information



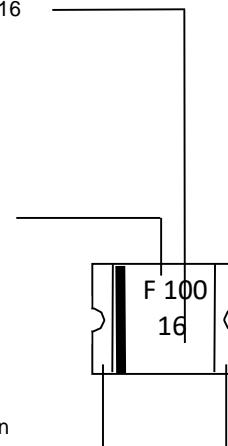
Part Marking

Part Identification, I_{hold}

- 014 – UBFSMD014
- 020 – UBFSMD020
- 035 – UBFSMD035
- 050 – UBFSMD050
- 110 – UBFSMD110-16
- 110 – UBFSMD110
- 150 – UBFSMD150
- 160 – UBFSMD160
- 200 – UBFSMD200
- 260 – UBFSMD260
- 300 – UBFSMD300

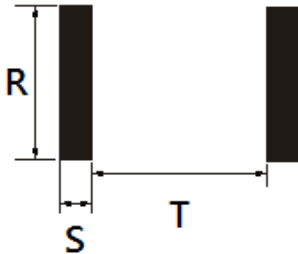
Manufacturer Logo

Sn plated Cu Termination



UBF SMD Series (1812)

Recommended Reflow Profile & Pad Size

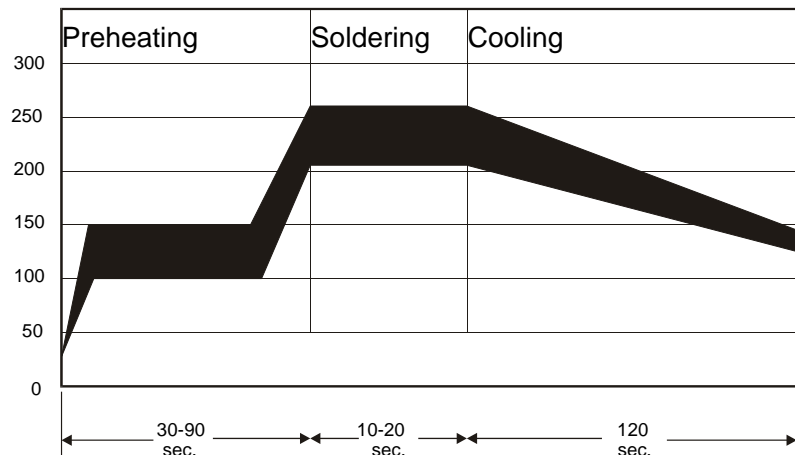


Recommended Pad Layout

Part No.	R	S	T
UBF SMD010	3.15	1.78	3.45
UBF SMD014	3.15	1.78	3.45
UBF SMD020	3.15	1.78	3.45
UBF SMD035	3.15	1.78	3.45
UBF SMD050	3.15	1.78	3.45
UBF SMD075	3.15	1.78	3.45
UBF SMD110	3.15	1.78	3.45
UBF SMD125	3.15	1.78	3.45
UBF SMD150	3.15	1.78	3.45
UBF SMD160	3.15	1.78	3.45
UBF SMD200	3.15	1.78	3.45
UBF SMD260	3.15	1.78	3.45
UBF SMD300	3.15	1.78	3.45

Reflow

- The recommended reflow profile is shown as the figure at right hand side.
- A maximum solder paste of thickness 0.25mm is recommended.
- Hot air, infra-red, vapor phase reflowing are recommended.

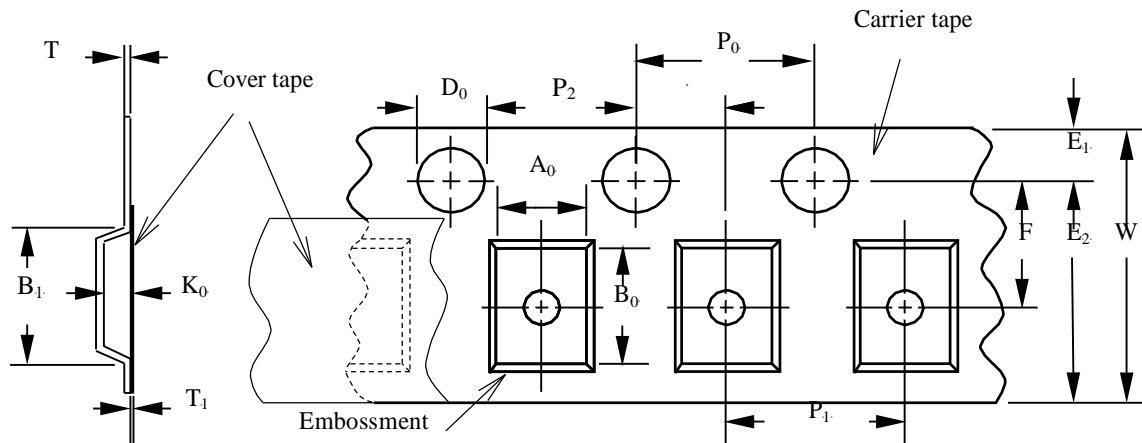


WARNING:

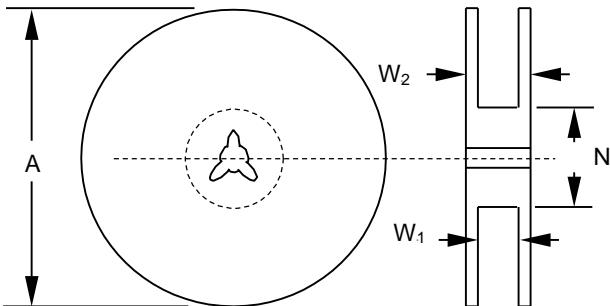
- Devices may not meet specifications if reflow temperatures exceed the recommended profile.
- Operation beyond maximum ratings or improper use may result in device damage and possible electrical arcing, flaming or explosion.
- The devices may not meet specified ratings if storage conditions exceeded 40°C and 70% relative humidity.
- The devices are intended to protect against occasional over-current or over-temperature fault conditions and should not be used when there are repeated fault conditions or prolonged trip events.
- The devices should not be placed under pressure or installed in spaces that would prevent thermal expansion, due to any prohibition of thermal expansion of the devices might result improper protection of fault conditions.
- UNIX TECH reserves the right to change any information or specification within this data book without notice.

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Tape & Reel Packaging Specification per EIA481-1



Parameter as EIA481-1	Dimensions (mm)
W	12.00 ± 0.30
P ₀	4.00 ± 0.10
P ₁	8.00 ± 0.10
P ₂	2.00 ± 0.05
A ₀	3.50 ± 0.23
B ₀	5.10 ± 0.15
B ₁ max.	8.2
D ₀	1.50 +0.10/-0.00
F	5.50 ± 0.05
E ₁	1.75 ± 0.10
E ₂ min.	10.25
T max.	0.6
T ₁ max.	0.1
K ₀	0.90 ± 0.15



Parameter as EIA481-1	Dimensions (mm)
A max.	185
N min.	50
W1	8.4 +1.5/-0.0
W2 max.	14.4

Parameter as EIA481-1	Dimensions (mm)
A max.	185
N min.	50
W1	12.4 +2.0/-0.0
W2 max.	18.4