

UBF hSMD Series (2920)

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 hSMD 030	0.30	0.60	60	10	1.5	1.5	3.0	1.000	4.800
UBF hSMD 050	0.50	1.00	60	10	1.5	2.5	4.0	0.300	1.400
UBF hSMD 075	0.70	1.50	33	40	1.5	8.0	0.3	0.018	1.000
UBF hSMD 100	1.10	2.20	33	40	1.5	8.0	0.5	0.090	0.410
UBF hSMD 125	1.25	2.50	33	40	1.5	8.0	2.0	0.050	0.250
UBF hSMD 150	1.50	3.00	33	40	1.5	8.0	2.0	0.050	0.230
UBF hSMD 185	1.85	3.70	33	40	1.5	8.0	2.5	0.040	0.150
UBFhSMD 200	2.00	4.00	16	40	1.5	8.0	4.5	0.035	0.120
UBF hSMD 250	2.50	5.00	16	40	1.5	8.0	16.0	0.025	0.085
UB hFSMD 260	2.60	5.20	6	40	1.5	8.0	20.0	0.020	0.075
UB hFSMD 300	3.00	5.20	6	40	1.5	8.0	25.0	0.010	0.048

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.

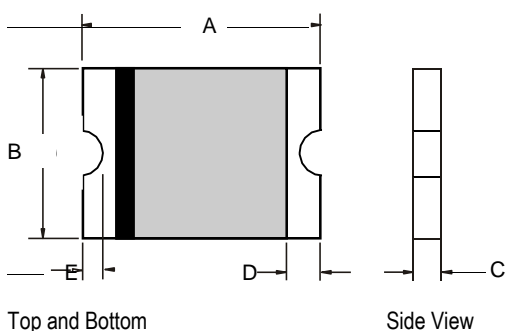
Dimensions

Part No	A		B		C		D		E	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
UBF hSMD	6.73	7.98	4.80	5.44	0.30	1.15	0.35	--	0.30	--

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

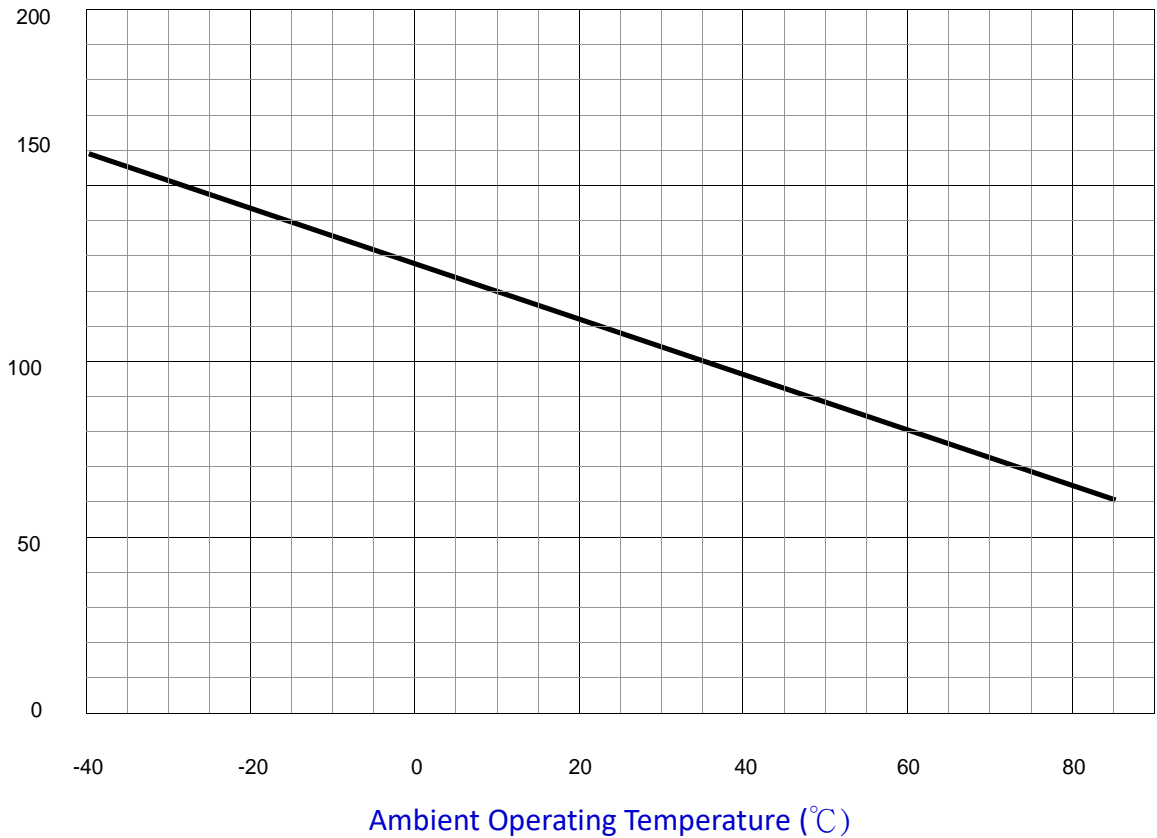
Agency Approval: UL File Number E 119550
c-UL File Number E 119550
TUV File Number Pending



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

Part No	-40	-20	0	20	40	60	85
UBFh SMD030	0.47	0.45	0.35	0.30	0.25	0.20	0.14
UBFh SMD050	0.76	0.67	0.55	0.50	0.45	0.35	0.23
UBFh SMD075	1.10	0.99	0.87	0.75	0.63	0.49	0.35
UBFh SMD100	1.60	1.45	1.28	1.10	0.92	0.71	0.52
UBFh SMD125	1.60	1.45	1.28	1.10	0.92	0.71	0.52
UBFh SMD150	2.30	2.05	1.77	1.50	1.23	0.95	0.61
UBFh SMD185	2.68	2.48	2.16	1.85	1.54	0.1.22	0.83
UBFh SMD 200	2.90	2.68	2.34	2.00	1.66	1.32	0.90
UBFh SMD250	3.63	3.35	2.93	2.50	2.08	1.65	1.13
UBFh SMD260	3.77	3.48	3.04	2.60	2.16	1.72	1.17
UBFh SMD300	4.35	4.02	3.51	3.00	2.49	1.98	1.35

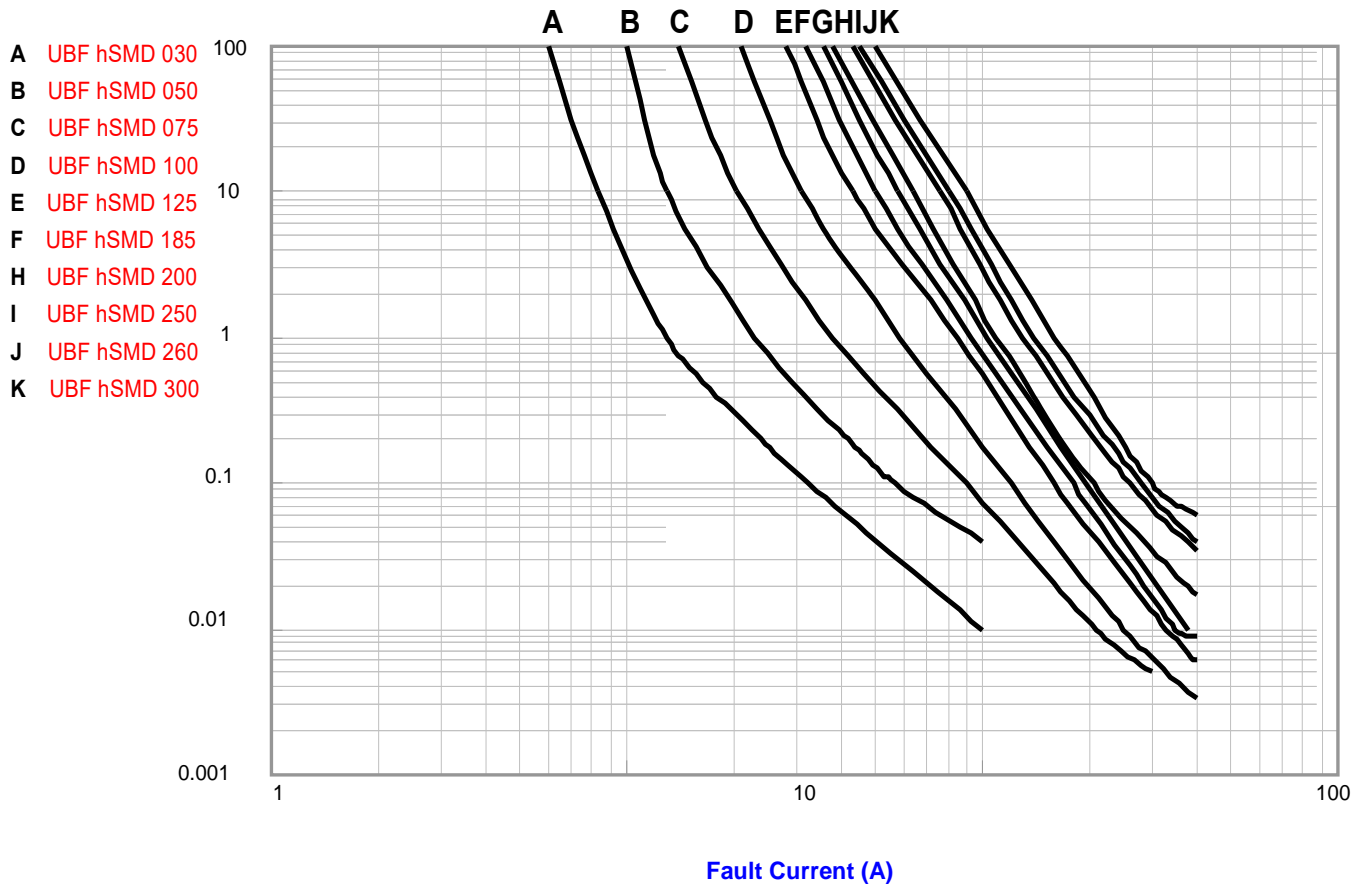


Environmental Characteristics

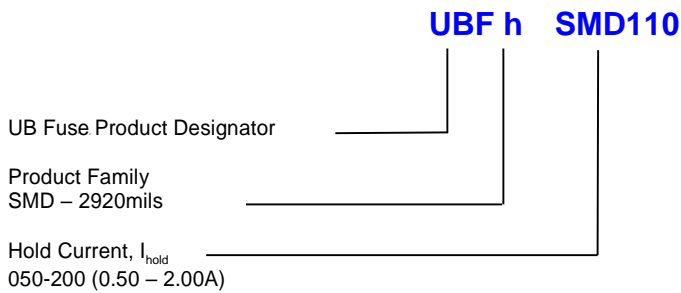
Test	Test Conditions	Resistance Change
Passive Aging	+85°C, 1000 hours	+10% typical resistance change
Humidity Aging	+85°C, 85% R.H., 7 days	±10% typical resistance change
Thermal Shock	+85°C to -40°C, 10 times MIL-STD-202, Method 107G	±10% typical resistance change
Vibration	MIL-STD-883C, Condition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

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Typical Time To Trip Curve at 20°C



Ordering Information

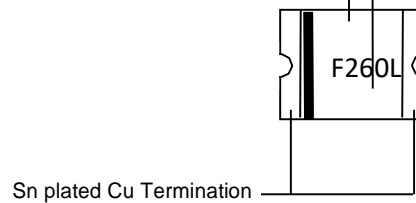


Part Marking

Part Identification, I_{hold}

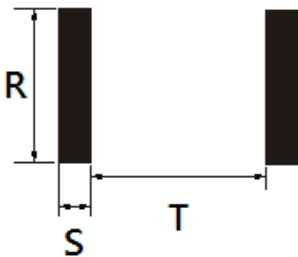
- 030 – UBFhSMD030
- 050 – UBFhSMD050
- 075 – UBFhSMD075
- 125 – UBFhSMD125
- 150 – UBFhSMD150
- 185 – UBFhSMD185
- 200 – UBFhSMD200
- 250 – UBFhSMD250
- 260 – UBFhSMD260

Manufacturer Logo



UBF hSMD Series (2920)

Recommended Reflow Profile & Pad Size

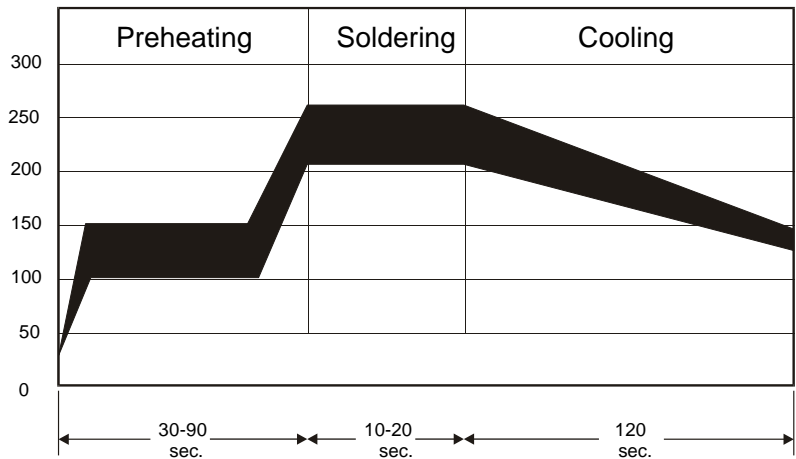


Recommended Pad Layout

Part No.	R	S	T
UBF hSMD030	5.10	2.30	5.60
UBF hSMD050	5.10	2.30	5.60
UBF hSMD100	5.10	2.30	5.60
UBF hSMD125	5.10	2.30	5.60
UBF hSMD150	5.10	2.30	5.60
UBF hSMD200	5.10	2.30	5.60
UBF hSMD250	5.10	2.30	5.60
UBF hSMD260	5.10	2.30	5.60
UBF hSMD260	5.10	2.30	5.60

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.

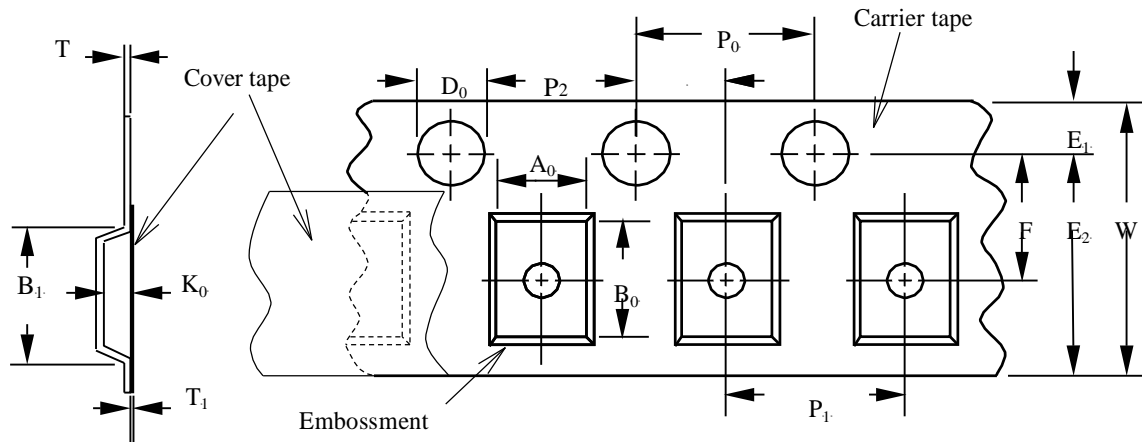


WARNING:

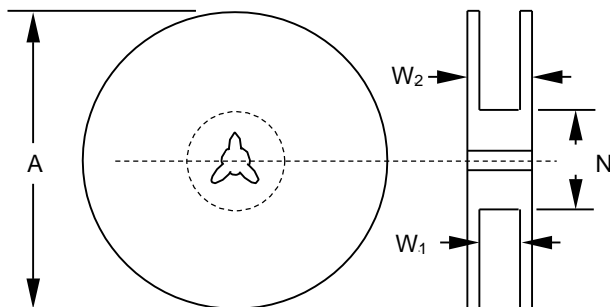
- Devices may not meet specifications if reflow temperatures exceed the recommended profile.
- Operation beyond maximum ratings or improper use may result in device damage and possible electrical arcing, flaming or explosion.
- The devices may not meet specified ratings if storage conditions exceeded 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
W ₁	8.4 +1.5/-0.0
W _{2 max.}	14.4

