

Product Specifications

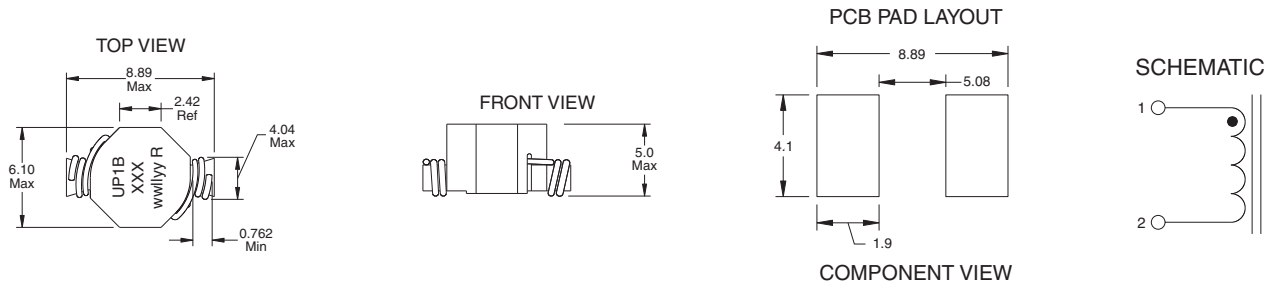
Part Number	Inductance μH (rated)	OCL ⁽¹⁾ μH ±20%	I RMS ⁽²⁾ (A)	I SAT ⁽³⁾ (A)	DCR ⁽⁴⁾ Ohms max.
UP1B-R47-R	0.47	0.569	6.0	7.7	0.0097
UP1B-1R0-R	1.0	1.20	4.4	5.3	0.0177
UP1B-1R5-R	1.5	1.61	4.2	4.5	0.0200
UP1B-2R2-R	2.2	2.62	3.1	3.5	0.0363
UP1B-3R3-R	3.3	3.79	2.9	3.0	0.0428
UP1B-4R7-R	4.7	5.15	2.2	2.6	0.0544
UP1B-6R8-R	6.8	6.87	1.7	2.2	0.0897
UP1B-100-R	10.0	11.00	1.5	1.9	0.1107
UP1B-150-R	15.0	16.00	1.2	1.5	0.1747
UP1B-220-R	22.0	23.50	1.0	1.2	0.2541
UP1B-330-R	33.0	36.00	0.82	0.99	0.3670
UP1B-470-R	47.0	48.50	0.72	0.87	0.4740
UP1B-680-R	68.0	73.52	0.58	0.67	0.7320
UP1B-101-R	100.0	112.67	0.47	0.53	1.11
UP1B-151-R	150.0	152.40	0.40	0.46	1.61
UP1B-221-R	220.0	223.10	0.36	0.38	1.96
UP1B-331-R	330.0	331.90	0.28	0.31	3.10
UP2B-R47-R	0.47	0.595	10.6	11.4	0.0049
UP2B-1R0-R	1.0	1.00	9.3	9.9	0.0065
UP2B-1R5-R	1.5	1.46	8.3	7.9	0.0081
UP2B-2R2-R	2.2	2.56	7.2	6.1	0.0107
UP2B-3R3-R	3.3	3.23	6.5	5.1	0.0128
UP2B-4R7-R	4.7	4.77	5.5	4.2	0.0165
UP2B-6R8-R	6.8	6.63	5.0	3.6	0.0202
UP2B-100-R	10.0	9.73	4.3	3.3	0.0267
UP2B-150-R	15.0	15.43	3.5	2.4	0.0410
UP2B-220-R	22.0	22.50	2.8	2.0	0.0617
UP2B-330-R	33.0	33.13	2.1	1.7	0.0917
UP2B-470-R	47.0	48.65	1.7	1.4	0.1388
UP2B-680-R	68.0	68.17	1.5	1.2	0.1787
UP2B-820-R	82.0	84.1	1.34	1.03	0.2235
UP2B-101-R	100.0	102.60	1.2	0.95	0.2707
UP2B-151-R	150.0	150	1.0	0.77	0.4100
UP2B-221-R	220.0	223	0.773	0.637	0.6717
UP2B-331-R	330.0	338	0.676	0.510	0.8783
UP2B-471-R	470.0	471	0.553	0.427	1.31
UP2B-681-R	680.0	700	0.452	0.355	1.97
UP2B-821-R	820.0	823	0.423	0.334	2.24
UP2B-102-R	1000.0	1005	0.369	0.300	2.96
UP3B-R47-R	0.47	0.452	16.0	25.1	0.0021
UP3B-1R0-R	1.0	1.34	12.5	15.3	0.0034
UP3B-1R5-R	1.5	2.08	10.0	12.0	0.0053
UP3B-2R2-R	2.2	3.01	9.2	10.2	0.0074
UP3B-3R3-R	3.3	3.96	8.0	9.3	0.0083
UP3B-4R7-R	4.7	5.00	6.5	7.7	0.0114
UP3B-6R8-R	6.8	7.70	5.8	6.2	0.0183
UP3B-100-R	10.0	11.00	4.3	5.2	0.0260
UP3B-150-R	15.0	16.38	3.9	4.3	0.0317
UP3B-220-R	22.0	23.93	3.1	3.7	0.0490
UP3B-330-R	33.0	33.85	2.4	3.0	0.0688
UP3B-470-R	47.0	51.00	1.9	2.4	0.1082
UP3B-680-R	68.0	69.50	1.6	2.0	0.1558
UP3B-101-R	100.0	101.40	1.4	1.8	0.2053
UP3B-151-R	150.0	152.9	1.2	1.4	0.2960
UP3B-331-R	330.0	332.80	0.75	0.98	0.7330
UP4B-R47-R	0.47	0.473	19.2	51.7	0.0019
UP4B-1R0-R	1.0	0.916	17.3	37.3	0.0023
UP4B-1R5-R	1.5	1.52	13.4	28.9	0.0039
UP4B-2R2-R	2.2	2.27	12.0	23.7	0.0048
UP4B-3R3-R	3.3	3.14	11.0	20.2	0.0057
UP4B-4R7-R	4.7	5.34	8.6	15.6	0.0093
UP4B-6R8-R	6.8	6.66	8.3	14.1	0.0100
UP4B-100-R	10.0	9.77	6.8	11.5	0.0150
UP4B-150-R	15.0	15.61	5.5	9.1	0.0230
UP4B-220-R	22.0	22.61	4.5	7.6	0.0340
UP4B-330-R	33.0	34.30	3.7	6.1	0.0520
UP4B-470-R	47.0	48.10	3.1	5.2	0.0740
UP4B-680-R	68.0	69.14	2.4	4.3	0.1200
UP4B-101-R	100.0	99.42	2.0	3.6	0.1700
UP4B-151-R	150.0	146.90	1.7	3.0	0.2392
UP4B-221-R	220.0	221.40	1.4	2.4	0.3571
UP4B-331-R	330.0	330.00	1.1	2.0	0.5800
UP4B-471-R	470.0	470.10	0.91	1.7	0.8330

Notes: (1) Open Circuit Inductance Test Parameters: 100 kHz, 250 Vrms, 0.0 Adc.
(2) RMS current for an approximate ΔT of 40 °C. at an ambient temperature of +85 °C.

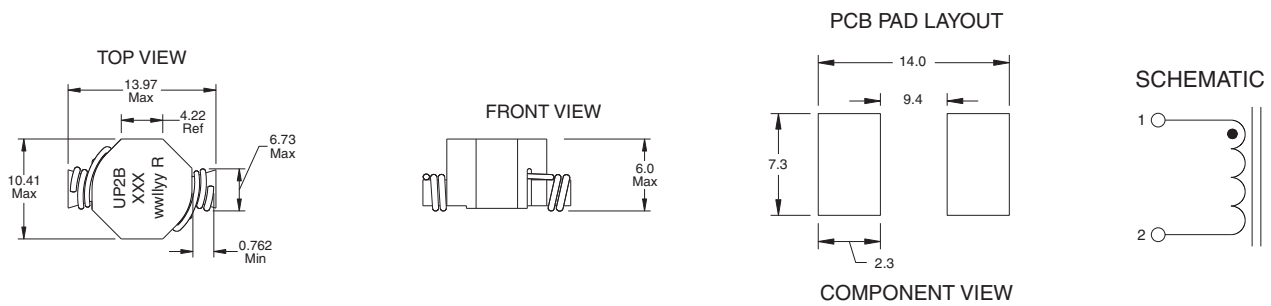
(3) Peak current for approximately 30% rolloff UP1B, 3B, 4B. 10% rolloff UP2B @ +20 °C
(4) DCR limits +20 °C.

Dimensions- mm

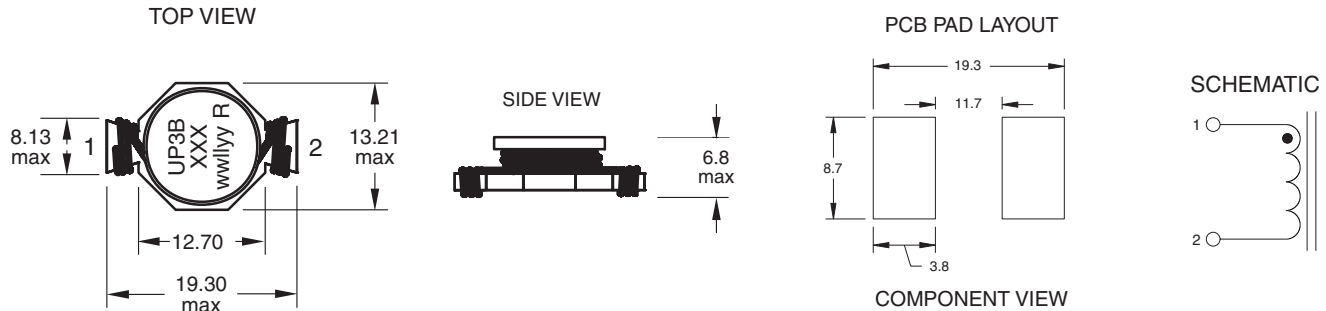
UP1B



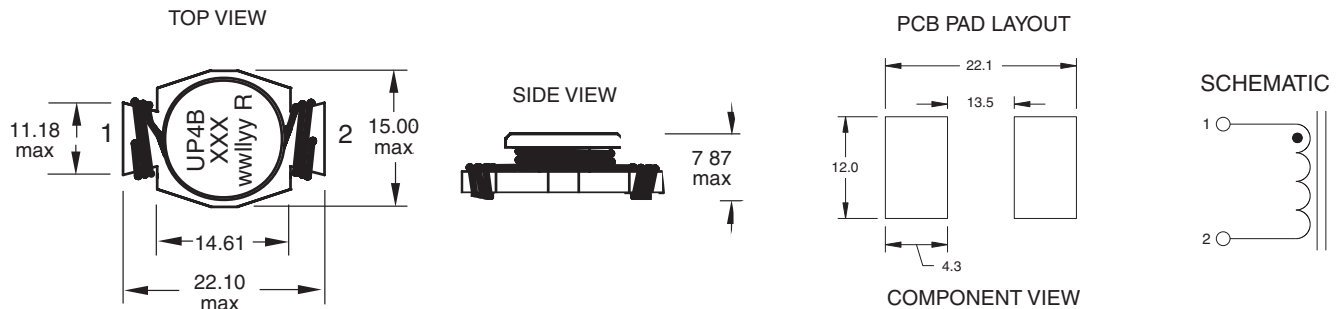
UP2B



UP3B



UP4B



Do not route traces or vias underneath inductor

wwlyy = (date code) R = revision level
xxx = Inductance value per family chart

UP1B



Parts packaged on 13" Diameter reel,
900 parts per reel.

SECTION A-A

Direction of feed

Dimensions in millimeters.



Parts packaged on 13" Diameter reel,
550 parts per reel.

SECTION A-A

Direction of feed →

Dimensions in millimeters.



Parts packaged on 13" Diameter reel,
450 parts per reel.

Technical drawing of a cast iron machine base. The drawing includes a side view and a cross-section labeled SECTION A-A. The side view shows a long, narrow base with a central rectangular cutout and two smaller rectangular cutouts on either side. The cross-section shows a T-shaped profile with a flange and a base. Dimensions are given in millimeters.

Dimensions (in millimeters):

- Overall length: 32
- Overall width: 28.4
- Flange thickness: 1.75
- Base thickness: 14.2
- Distance from left end to first cutout: 2.0
- Distance between first and second cutouts: 4.0
- Distance from second cutout to center of base: 11.1
- Distance from center of base to right end: 15.3
- Distance between cutouts: 24.0
- Distance from left end to center of base: 22.3
- Distance from center of base to right end: 22.3
- Distance from left end to first cutout: 7.2
- Distance from first cutout to second cutout: 9.0
- Distance from second cutout to center of base: 11.1
- Distance from center of base to right end: 15.3

SECTION A-A

Direction of feed →

Dimensions in millimeters.

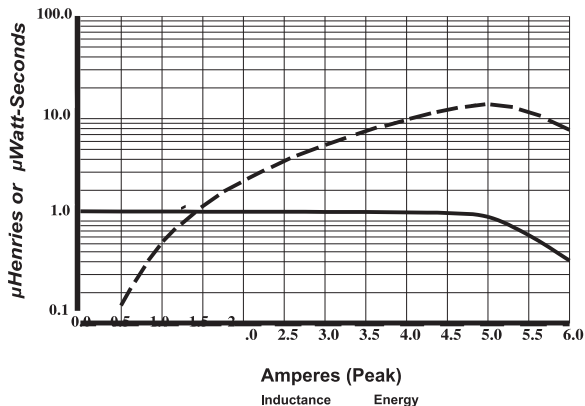


Parts packaged on 13" Diameter reel,
275 parts per reel.

Inductance characteristics

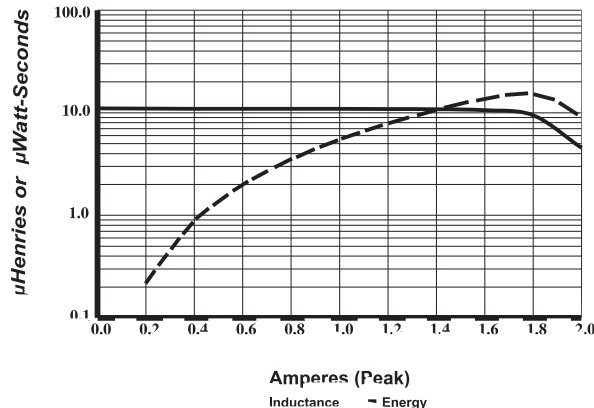
UP1B-1R0

Typical Inductance & Energy vs Saturation Current



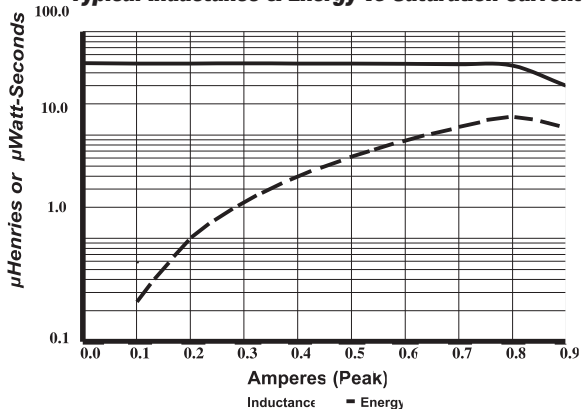
UP1B-100

Typical Inductance & Energy vs Saturation Current



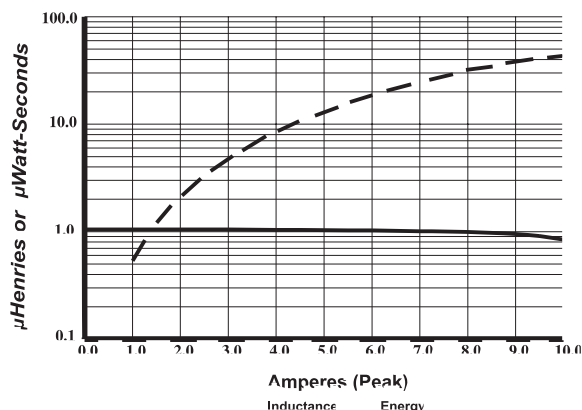
UP1B-470

Typical Inductance & Energy vs Saturation Current



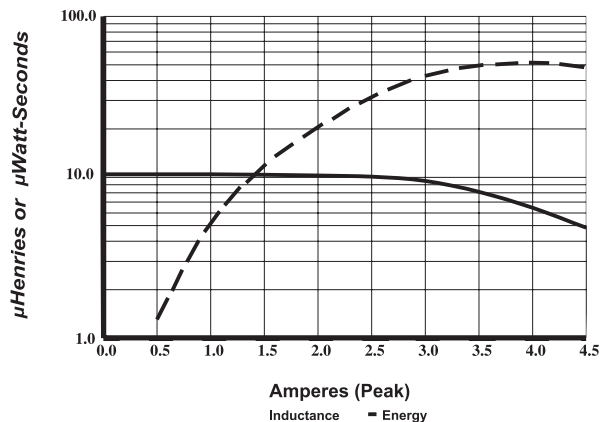
UP2B-1R0

Typical Inductance & Energy vs Saturation Current



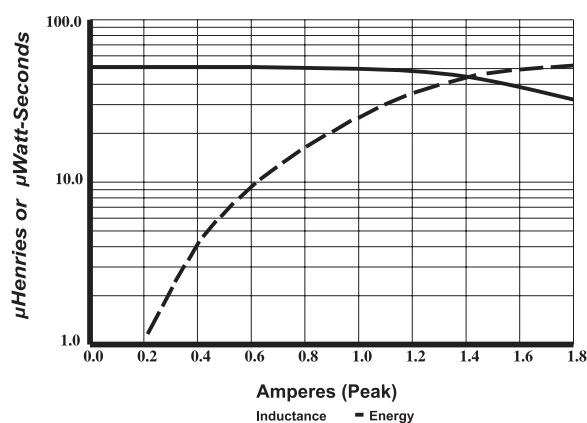
UP2B-100

Typical Inductance & Energy vs Saturation Current



UP2B-470

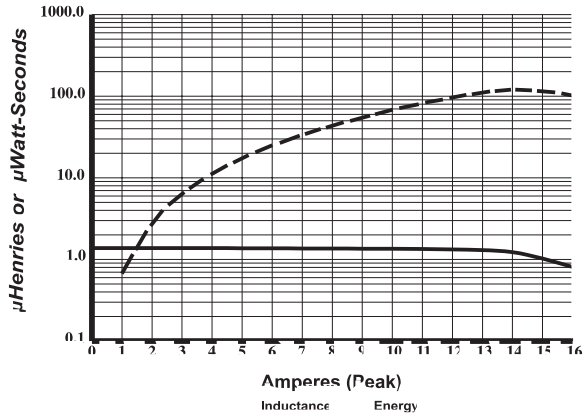
Typical Inductance & Energy vs Saturation Current



Inductance characteristics

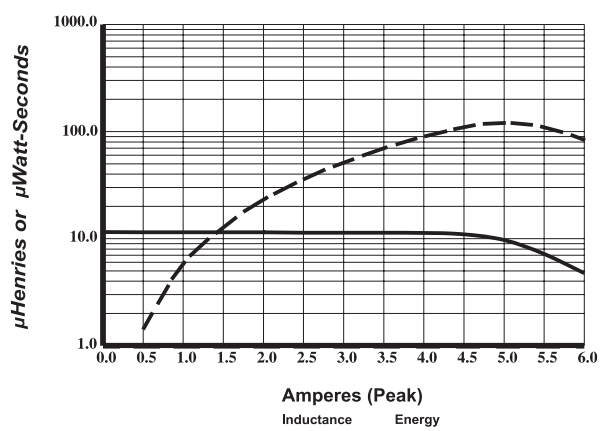
UP3B-1R0

Typical Inductance & Energy vs Saturation Current



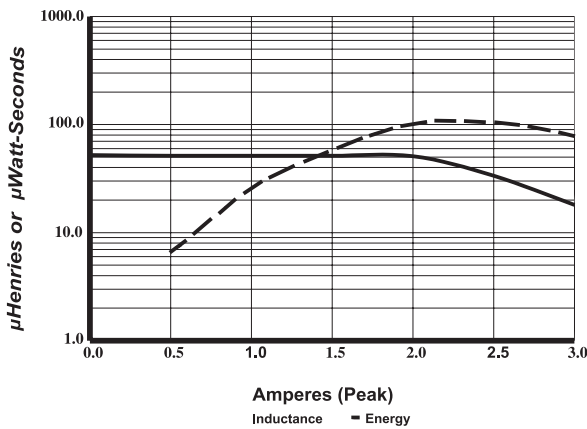
UP3B-100

Typical Inductance & Energy vs Saturation Current



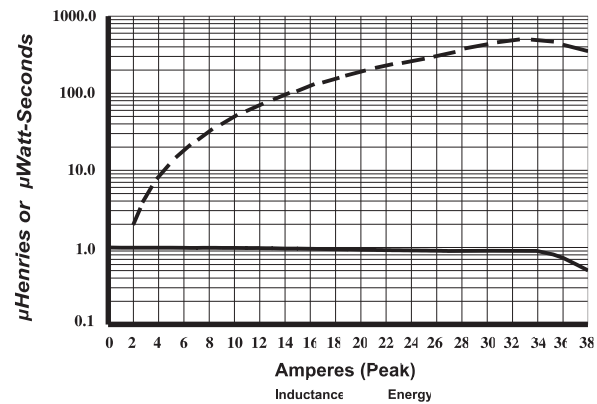
UP3B-470

Typical Inductance & Energy vs Saturation Current



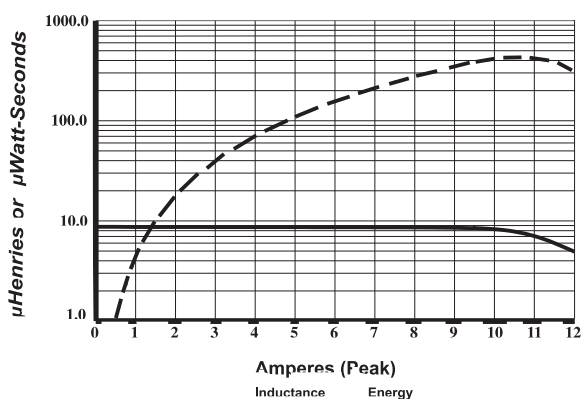
UP4B-1R0

Typical Inductance & Energy vs Saturation Current



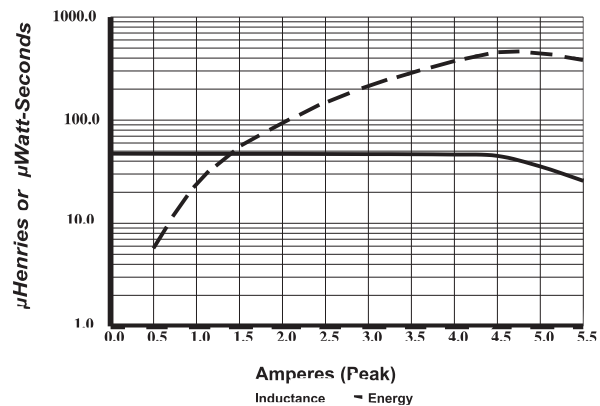
UP4B-100

Typical Inductance & Energy vs Saturation Current



UP4B-470

Typical Inductance & Energy vs Saturation Current



Solder Reflow Profile

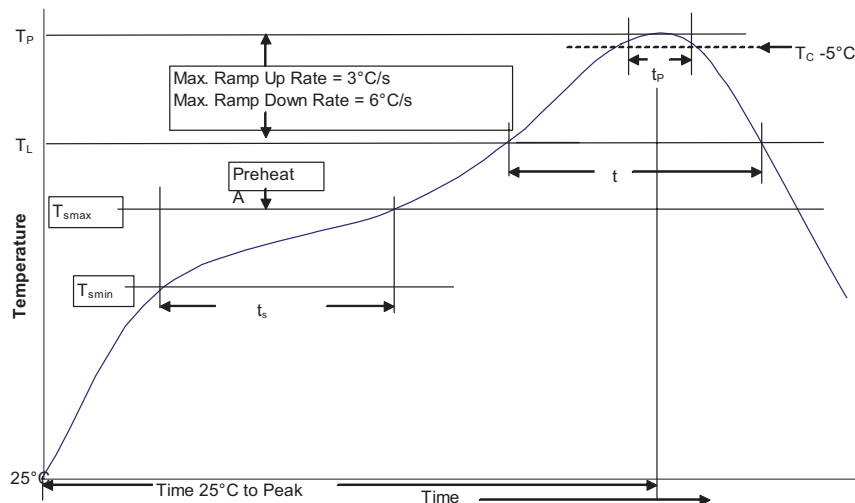


Table 1 - Standard SnPb Solder (T_C)

Package Thickness	Volume mm^3 <350	Volume mm^3 ≥ 350
<2.5mm	235°C	220°C
$\geq 2.5mm$	220°C	220°C

Table 2 - Lead (Pb) Free Solder (T_C)

Package Thickness	Volume mm^3 <350	Volume mm^3 350 - 2000	Volume mm^3 >2000
<1.6mm	260°C	260°C	260°C
1.6 - 2.5mm	260°C	250°C	245°C
>2.5mm	250°C	245°C	245°C

Reference JDEC J-STD-020

Profile Feature	Standard SnPb Solder	Lead (Pb) Free Solder
Preheat and Soak		
• Temperature min. (T_{smin})	100°C	150°C
• Temperature max. (T_{smax})	150°C	200°C
• Time (T_{smin} to T_{smax}) (t_s)	60-120 Seconds	60-120 Seconds
Average ramp up rate T_{smax} to T_P	3°C/ Second Max.	3°C/ Second Max.
Liquidous temperature (T_L)	183°C	217°C
Time at liquidous (t_L)	60-150 Seconds	60-150 Seconds
Peak package body temperature (T_P)*	Table 1	Table 2
Time (t_P)** within 5 °C of the specified classification temperature (T_C)	20 Seconds**	30 Seconds**
Average ramp-down rate (T_P to T_{smax})	6°C/ Second Max.	6°C/ Second Max.
Time 25°C to Peak Temperature	6 Minutes Max.	8 Minutes Max.

* Tolerance for peak profile temperature (T_P) is defined as a supplier minimum and a user maximum.

** Tolerance for time at peak profile temperature (t_P) is defined as a supplier minimum and a user maximum.

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