

Molding Power Inductors

THMPI070603 Series

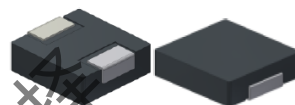
TOP-EMC

FEATURES

- Shielded construction
- Low loss realized with low DCR
- High performance (Isat) realized by metal dust core.
- Ultra low buzz noise, due to composite construction.
- RoHS, Halogen Free and REACH Compliance
- AEC-Q200 qualified

APPLICATIONS

- Electric Power Steering
- ABS Control Units
- Battery powered devices
- Car Navigation Systems
- Meters/Alarms
- Car distance Control Units



PRODUCT IDENTIFICATION

THMPI 070603 D 220 M T
① ② ③ ④ ⑤ ⑥

- ① Type : THMPI
- ② External Dimensions (L×W×H) [mm]= 070603
- ③ Feature Type: Differential
- ④ Nominal Inductance : 220=22μH
- ⑤ Inductance Tolerance : K=±10%
 M=±20%
 N=±30%
- ⑥ Packing T= Tape Carrier Package

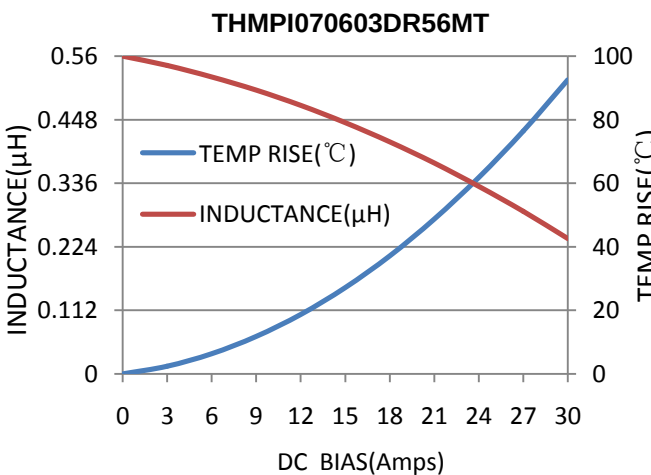
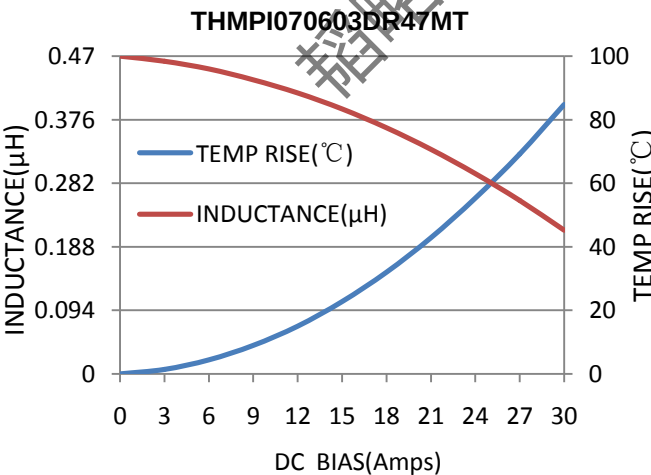
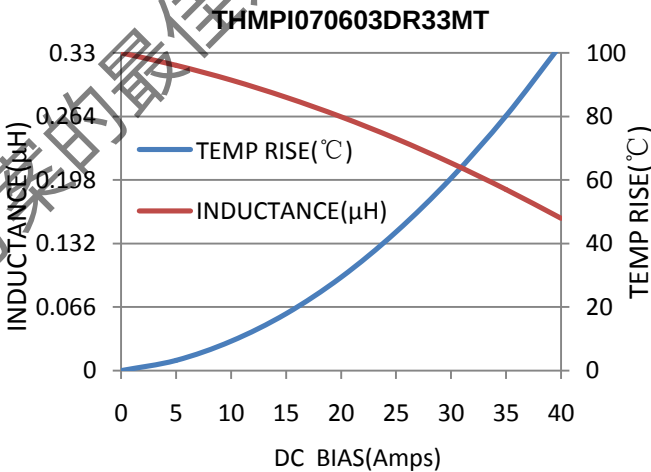
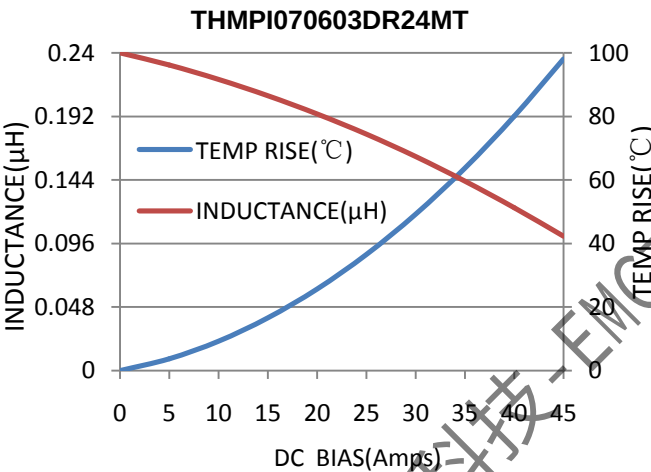
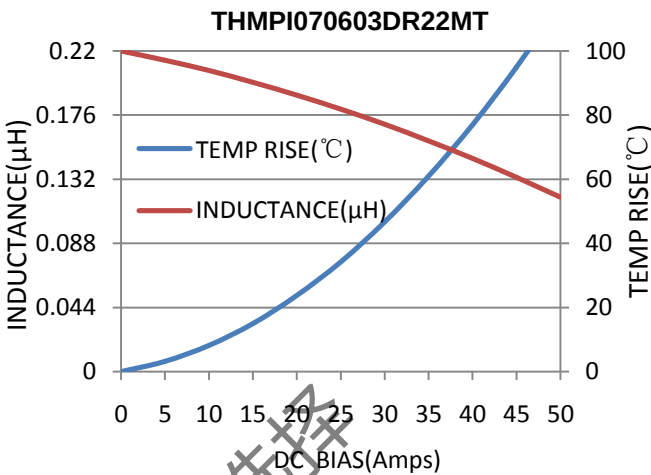
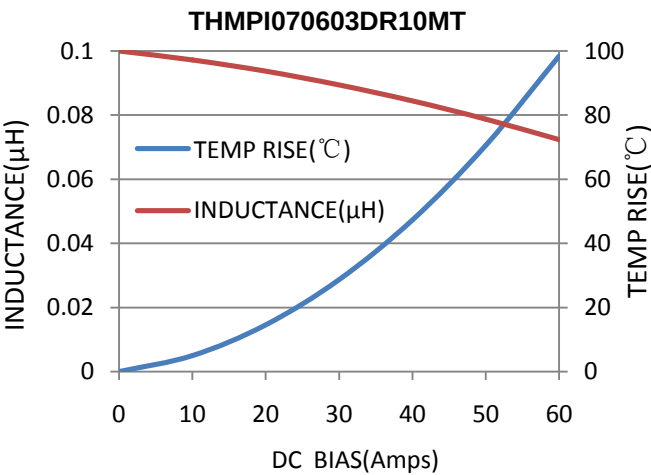
SPECIFICATIONS

Part No.	Inductance	DC Resistance		Heating Rating Current	Saturation Current
	L0 (μH)	DCR (mΩ)		Idc (A)	Isat (A)
	±20 %, 100 kHz, 1V	TYP.	MAX.	TYP.	TYP.
THMPI070603DR10MT	0.1	0.9	1.2	32.0	56.0
THMPI070603DR22MT	0.22	2.5	3.0	24.0	34.0
THMPI070603DR24MT	0.24	2.6	3.1	23.0	26.0
THMPI070603DR33MT	0.33	3.0	3.5	21.0	25.0
THMPI070603DR47MT	0.47	3.5	4.1	18.0	20.0
THMPI070603DR56MT	0.56	3.9	4.5	16.5	18.0
THMPI070603DR68MT	0.68	4.8	5.3	16.0	17.0
THMPI070603DR82MT	0.82	5.4	6.0	14.0	16.0
THMPI070603D1R0MT	1.0	6.7	7.4	12.0	15.0
THMPI070603D1R5MT	1.5	10.6	12.1	12.0	14.0
THMPI070603D2R2MT	2.2	13.5	15.0	9.5	10.0
THMPI070603D3R3MT	3.3	18.0	22.0	8.5	9.5
THMPI070603D4R7MT	4.7	28.0	33.0	6.0	6.5
THMPI070603D5R6MT	5.6	37.0	42.0	5.0	6.0
THMPI070603D6R8MT	6.8	42.5	48.0	5.0	6.0
THMPI070603D8R2MT	8.2	54.0	60.0	5.0	6.0
THMPI070603D100MT	10.0	62.0	67.0	4.5	5.5
THMPI070603D150MT	15.0	104.0	115.0	3.0	4.5
THMPI070603D220MT	22.0	180.0	200.0	2.3	3.0
THMPI070603D330MT	33.0	280.0	310.0	2.0	2.5

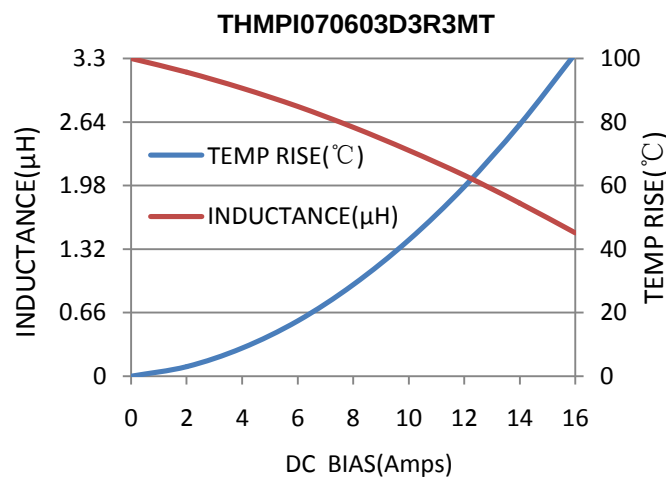
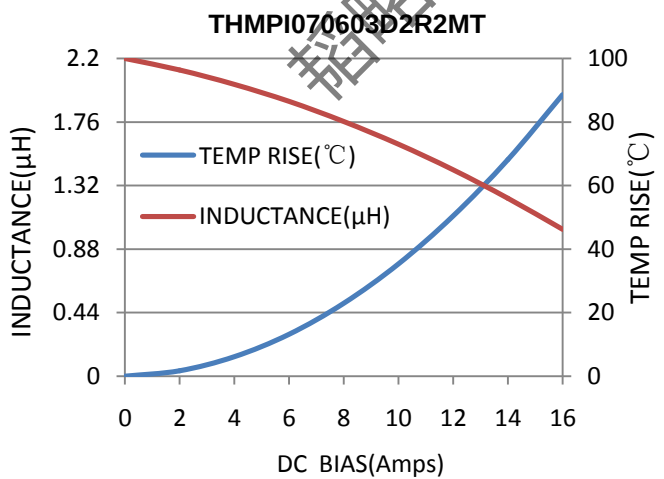
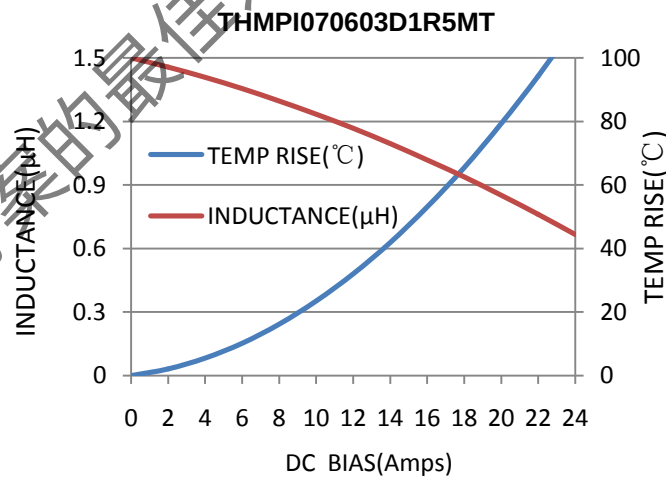
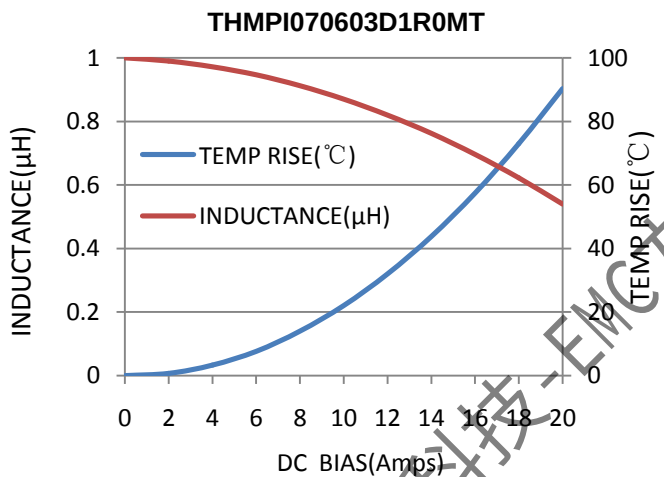
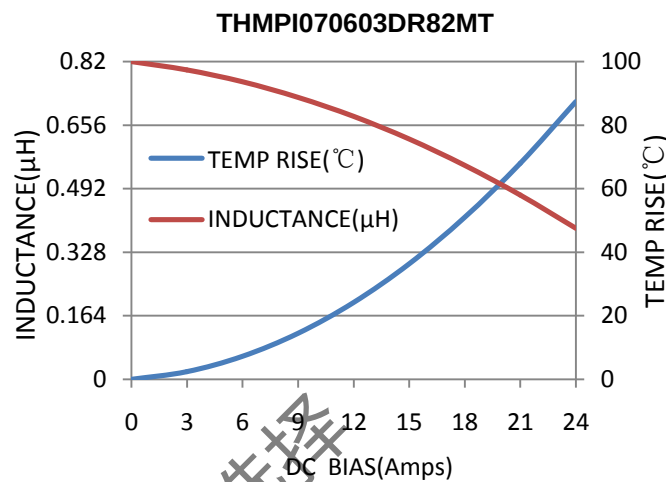
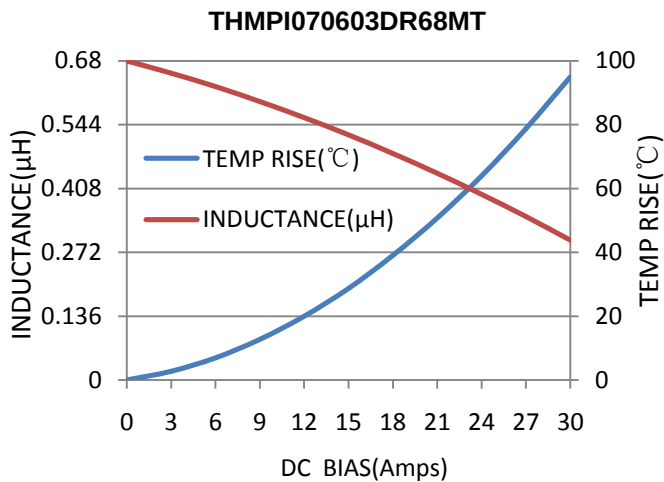
Notes

1. All test data is referenced to 25 °C ambient
2. Operating temperature range - 55 °C to + 125 °C
3. Idc(A):DC current (A) that will cause an approximate ΔT of 40 °C(reference ambient temperature is 25 °C)
4. Isat(A):DC current (A) that will cause L0 to drop approximately 30 %
5. The part temperature (ambient + temp rise) should not exceed 125 °C under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

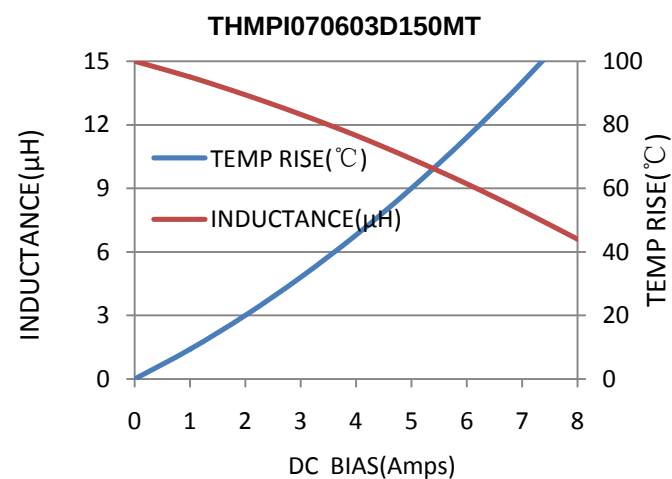
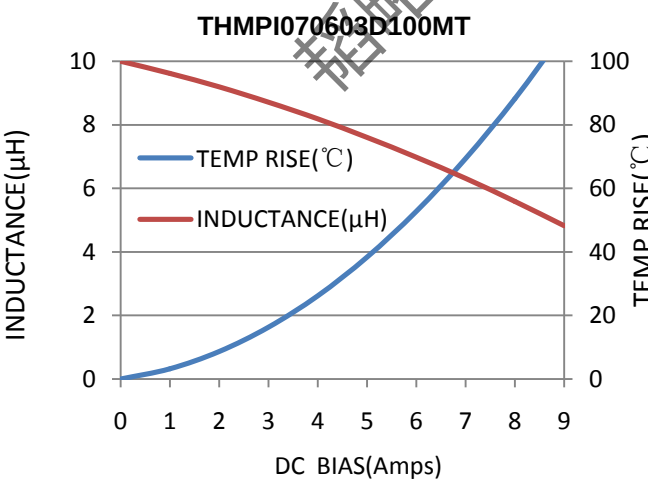
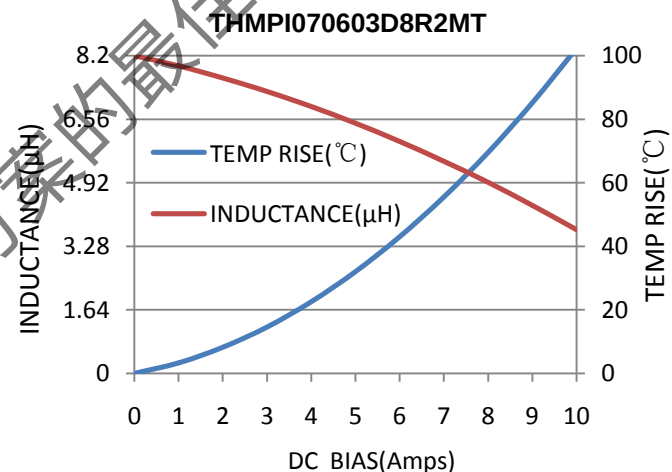
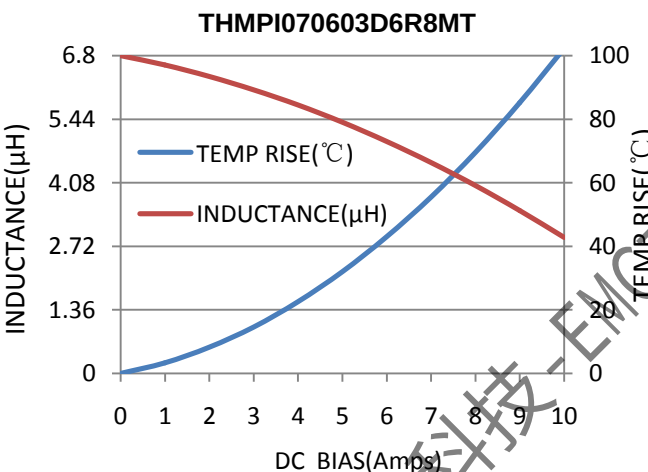
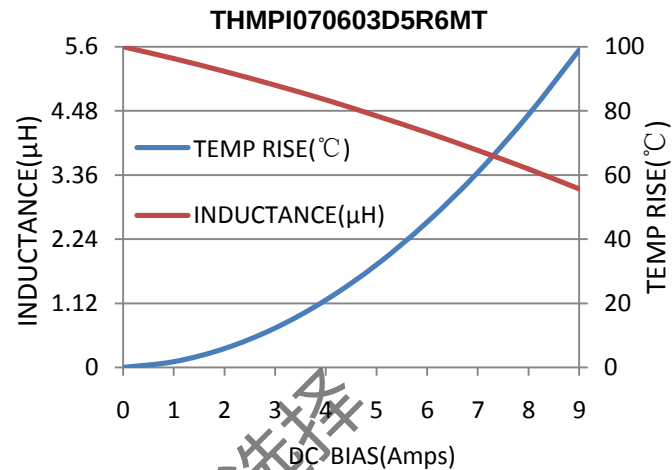
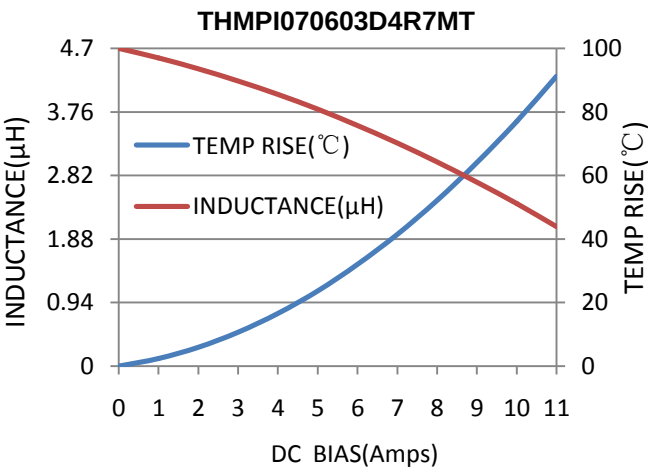
Graph



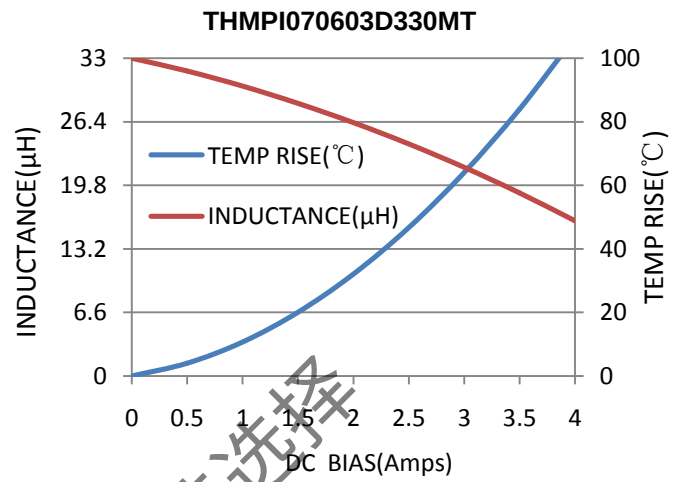
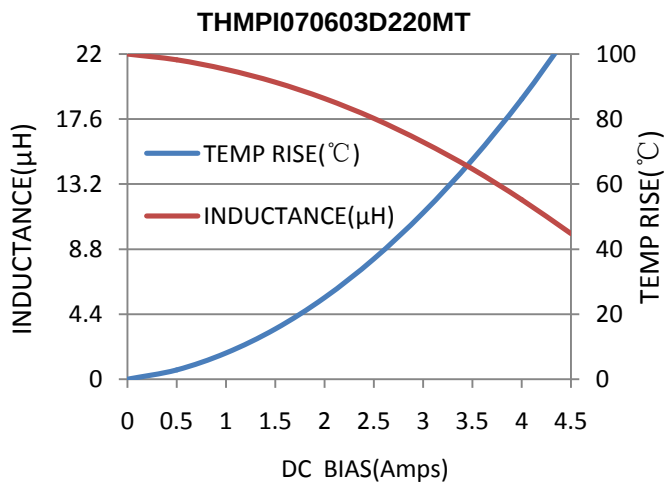
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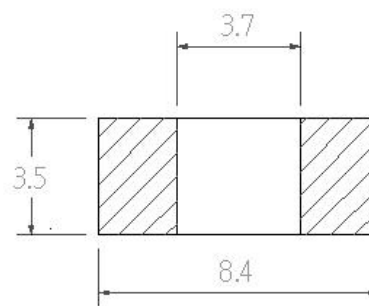
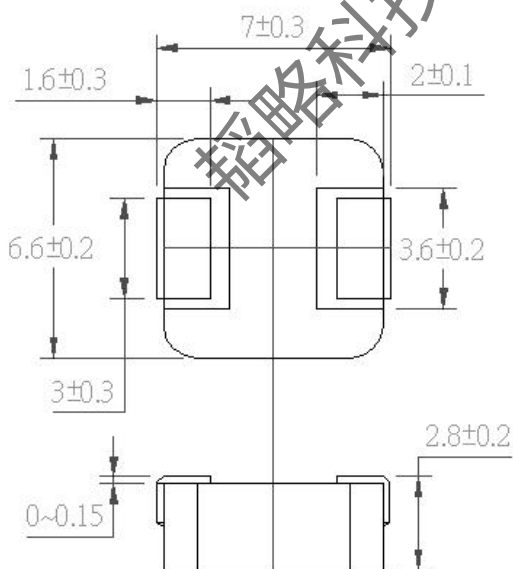
Graph



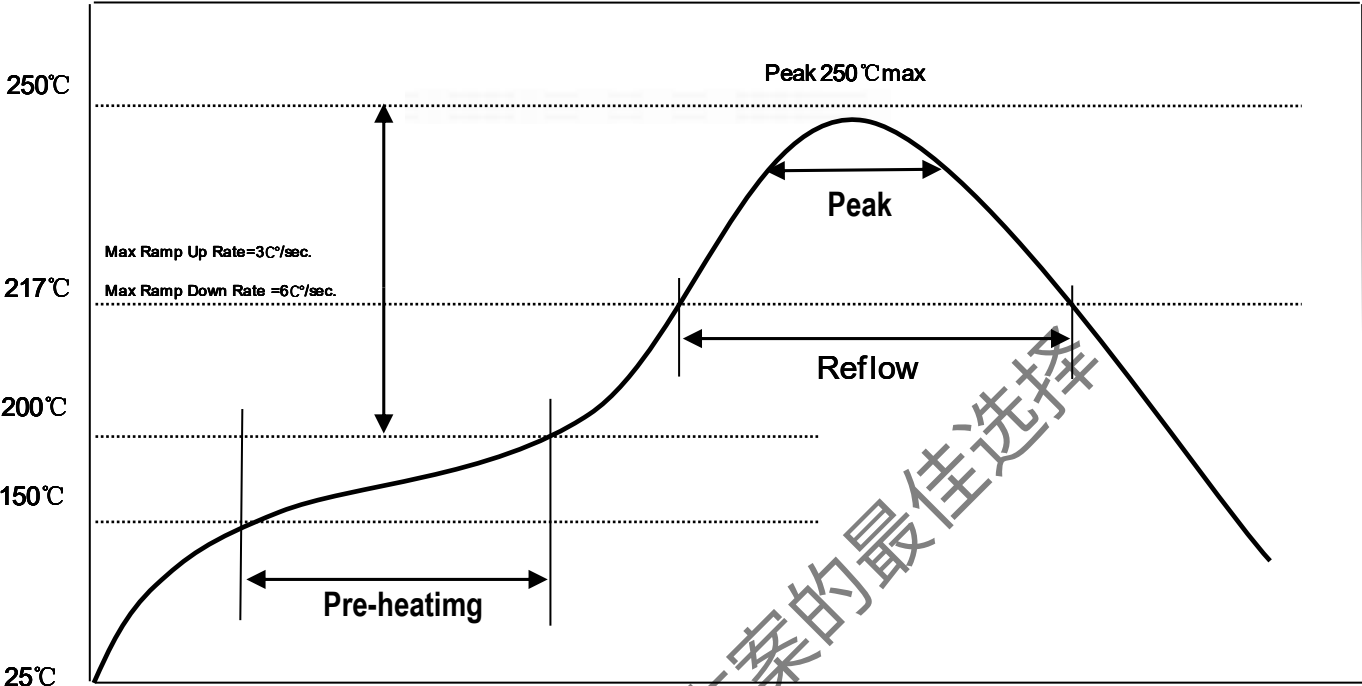
Graph



Confiuration and Dimensions : (Dimensions in mm)



RECOMMENDED SOLDERING TECHNOLOGIES



Item.	Ramp - up	Preheating	Reflow	Peak Temp	Cooling
Temp.scope	R.T.~150°C	150°C~200°C	217°C	260±5°C	Peak Temp.~150°C
Time spec	——	60~180sec	60~150sec	20~40sec	——
Time result	——	60~95sec	75~95sec	20~35sec	——

Note:

- 1.Re-flow possible times:within 2 times
- 2.Nitrogen adopted is recommended while in re-flow

The reflow profile in the above table is only for qualification and is not meant to specify board assembly profiles. Actual board assembly profiles must be based on the customer's specific board design, solder paste and process, and should not exceed the parameters as the Reflow profile shows.

CONTACT INFORMATION

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