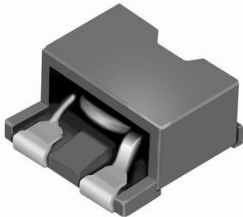




THE DATASHEET OF CDEP105-0R5MC-32

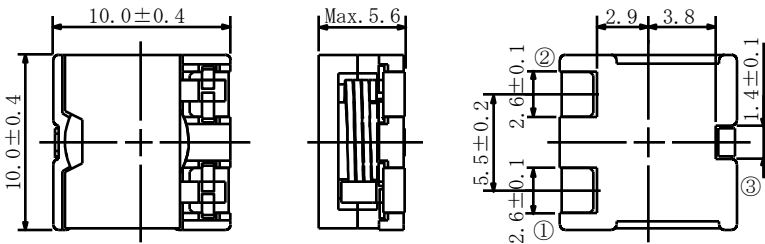
SMD Power Inductor
CDEP105



Description

- Ferrite core construction.
- Magnetically shielded.
- L × W × H: 10.4 × 10.4 × 5.6 mm Max.
- Product weight: 1.5g(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.

Dimension - [mm]



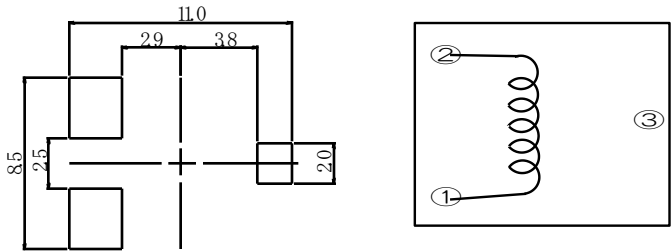
Environmental Data

- Operating temperature range: -40°C ~ +125°C (including coil's self temperature rise)
- Storage temperature range: -40°C ~ +125°C
- Solder reflow temperature: 260 °C peak.

Packaging

- Carrier tape and reel packaging
- 13.0" diameter reel
- 500pcs per reel

Land pattern and Schematics - [mm]



Applications

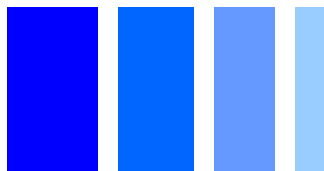
- Ideally used in PC and other high current power supply.

Electrical Characteristics1 – Low D.C.R. Type

PART NO.	STAMP	INDUCTANCE (μH) ※1	D.C.R.. (mΩ) [MAX.] (at 20°C)	SATURATION CURRENT(A) ※2		TEMPERATURE RISE CURRENT (A) ※3 ΔT=40°C
				(at 20°C)	(at100°C)	
CDEP105NP-0R3NC-88	0R3NL	0.36 ± 30%	1.7(1.4)	24.0	20.0	19.0
CDEP105NP-0R8MC-88	0R8ML	0.8 ± 20%	2.4(2.0)	16.0	13.2	17.7
CDEP105NP-1R4MC-88	1R4ML	1.4 ± 20%	4.1(3.4)	12.0	10.0	13.0
CDEP105NP-2R2MC-88	2R2ML	2.2 ± 20%	5.3(4.4)	9.6	8.0	11.2
CDEP105NP-3R2MC-88	3R2ML	3.2 ± 20%	7.5(6.2)	7.8	6.6	9.0
CDEP105NP-4R3MC-88	4R3ML	4.3 ± 20%	10.5(8.7)	6.8	5.7	7.8
CDEP105NP-5R7MC-88	5R7ML	5.7 ± 20%	12.4(10.3)	5.8	4.9	7.4
CDEP105NP-7R2MC-88	7R2ML	7.2 ± 20%	18.0(15.0)	5.3	4.2	6.2
CDEP105NP-8R8MC-88	8R8ML	8.8 ± 20%	23.8(19.8)	4.8	4.0	4.9

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CDEP105



Electrical Characteristics2 – Standard Type

PART NO.	STAMP	INDUCTANCE (μ H) ※1	D.C.R. (m Ω) [MAX.] (at 20°C)	SATURATION CURRENT (A) ※2		TEMPERATURE RISE CURRENT (A) ※3 $\Delta T=40^\circ\text{C}$
				(at 20°C)	(at 100°C)	
CDEP105NP-0R2NC-50	0R2NS	$0.22 \pm 30\%$	1.7(1.4)	40.0	30.9	19.0
CDEP105NP-0R4MC-50	0R4MS	$0.45 \pm 20\%$	2.4(2.0)	26.4	21.2	17.7
CDEP105NP-0R8MC-50	0R8MS	$0.8 \pm 20\%$	4.1(3.4)	20.8	16.7	13.0
CDEP105NP-1R3MC-50	1R3MS	$1.3 \pm 20\%$	5.3(4.4)	16.8	13.4	11.2
CDEP105NP-1R8MC-50	1R8MS	$1.8 \pm 20\%$	7.5(6.2)	13.8	11.0	9.0
CDEP105NP-2R5MC-50	2R5MS	$2.5 \pm 20\%$	10.5(8.7)	11.8	9.6	7.8
CDEP105NP-3R2MC-50	3R2MS	$3.2 \pm 20\%$	12.4(10.3)	10.5	8.4	7.4
CDEP105NP-4R0MC-50	4R0MS	$4.0 \pm 20\%$	18.0(15.0)	9.3	7.4	6.2
CDEP105NP-5R0MC-50	5R0MS	$5.0 \pm 20\%$	23.8(19.8)	8.4	6.7	4.9

Electrical Characteristics3 – High Power Type

PART NO.	STAMP	INDUCTANCE (μ H) ※1	D.C.R. (m Ω) [MAX.] (at 20°C)	SATURATION CURRENT (A) ※2		TEMPERATURE RISE CURRENT (A) ※3 $\Delta T=40^\circ\text{C}$
				(at 20°C)	(at 100°C)	
CDEP105NP-0R1NC-32	0R1NH	$0.15 \pm 30\%$	1.7(1.4)	55.0	46.0	19.0
CDEP105NP-0R3NC-32	0R3NH	$0.3 \pm 30\%$	2.4(2.0)	40.0	33.0	17.7
CDEP105NP-0R5MC-32	0R5MH	$0.5 \pm 20\%$	4.1(3.4)	30.4	25.0	13.0
CDEP105NP-0R8MC-32	0R8MH	$0.8 \pm 20\%$	5.3(4.4)	25.2	20.7	11.2
CDEP105NP-1R2MC-32	1R2MH	$1.2 \pm 20\%$	7.5(6.2)	21.0	17.4	9.0
CDEP105NP-1R5MC-32	1R5MH	$1.5 \pm 20\%$	10.5(8.7)	18.0	15.0	7.8
CDEP105NP-2R0MC-32	2R0MH	$2.0 \pm 20\%$	12.4(10.3)	15.8	13.1	7.4
CDEP105NP-2R5MC-32	2R5MH	$2.5 \pm 20\%$	18.0(15.0)	14.0	11.7	6.2
CDEP105NP-3R0MC-32	3R0MH	$3.0 \pm 20\%$	23.8(19.8)	12.6	10.5	4.9

※1. Measuring condition: at 100kHz.

※2. Saturation current: The value of D.C. current when the inductance decreases to 65% (while the tolerance is $\pm 30\%$) or 75% (while the tolerance is $\pm 20\%$) of it's nominal.

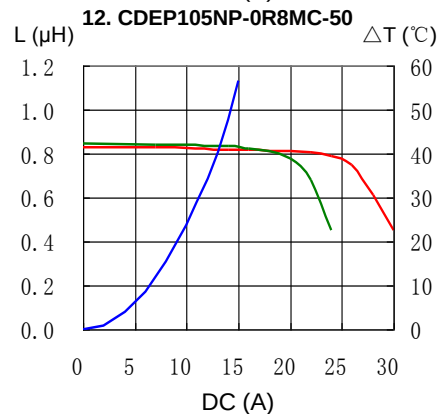
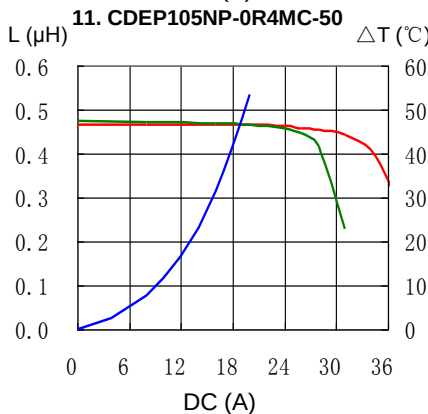
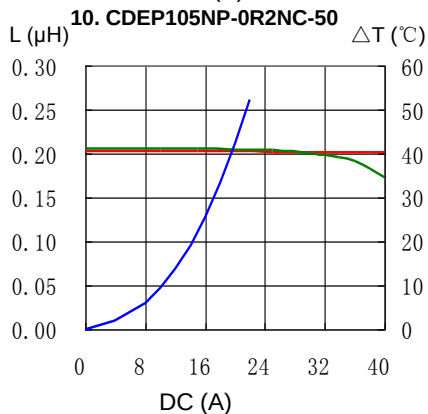
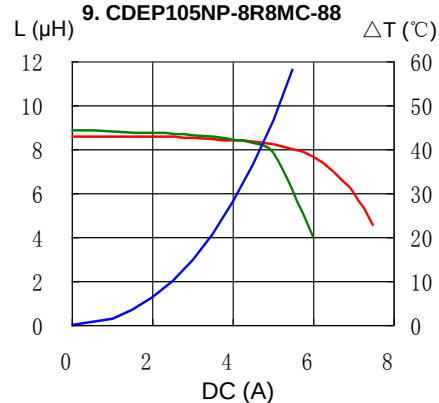
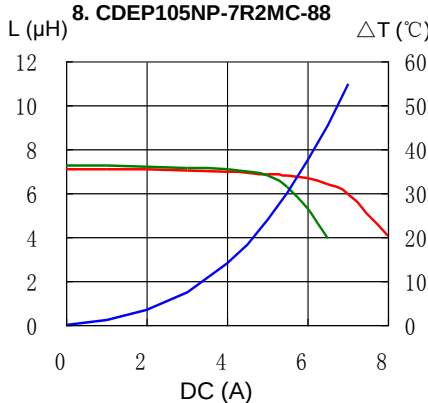
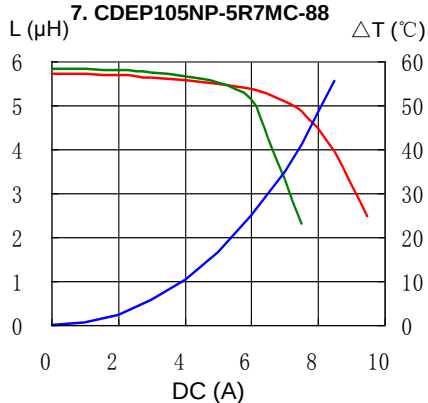
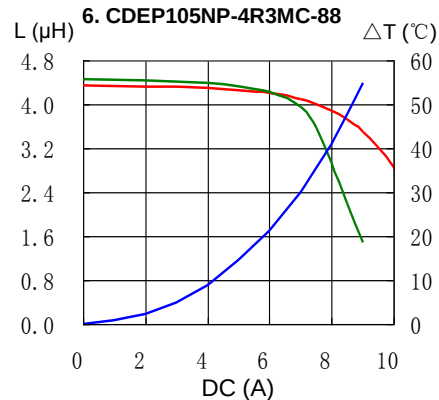
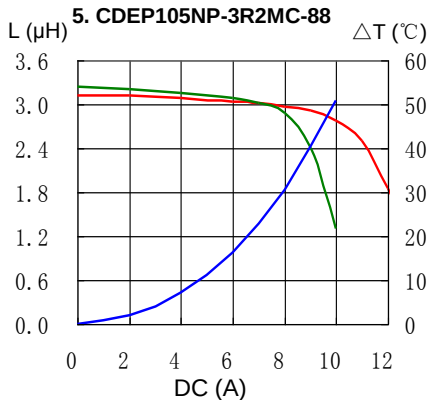
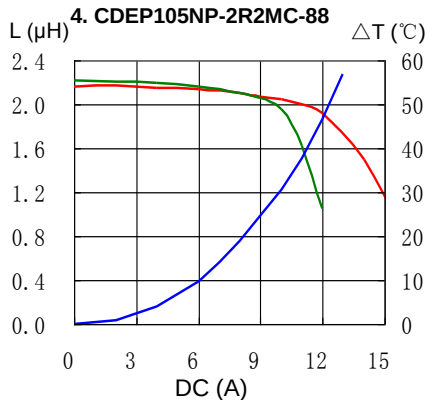
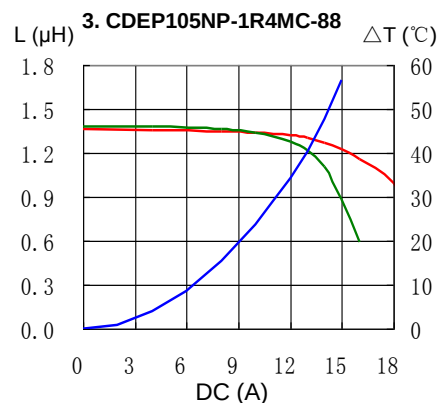
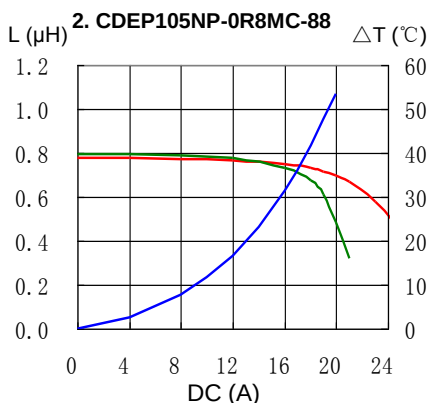
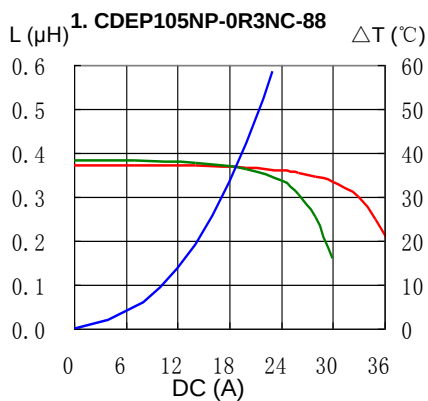
※3. Temperature rise current: The value of D.C. current when the temperature rise is $\Delta t=40^\circ\text{C}$ ($T_a=20^\circ\text{C}$).

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Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) — ΔT



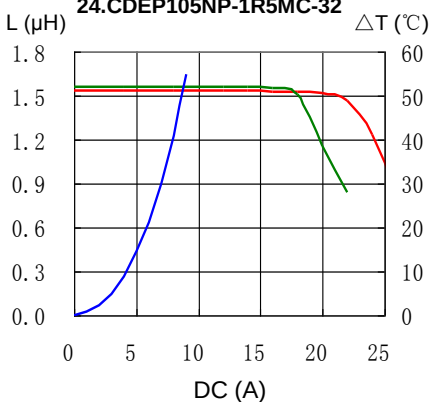
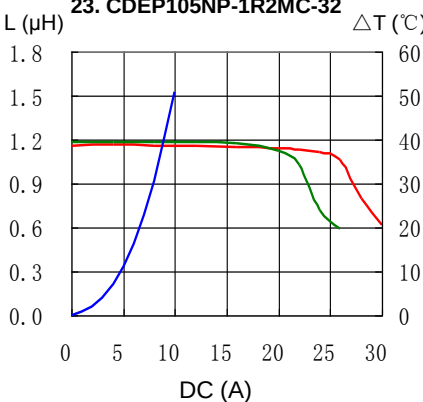
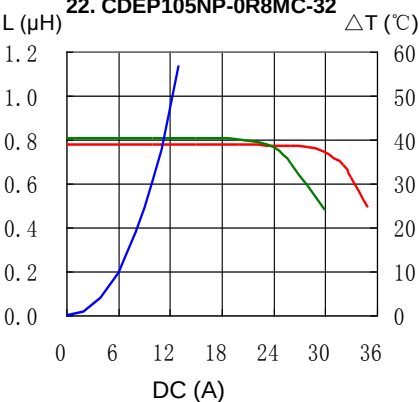
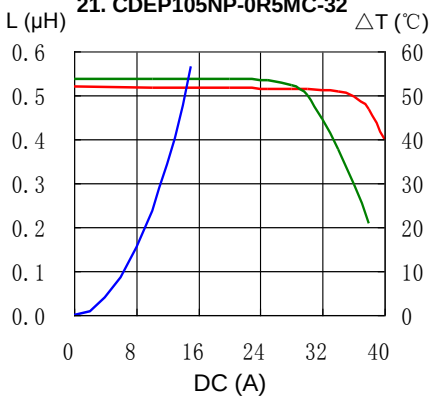
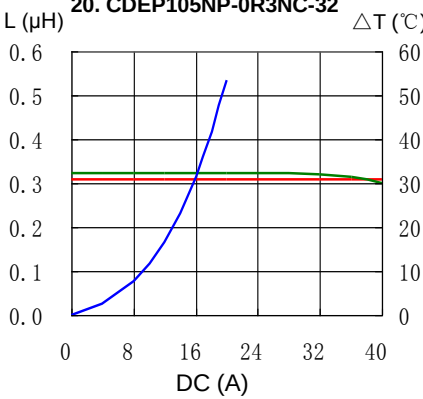
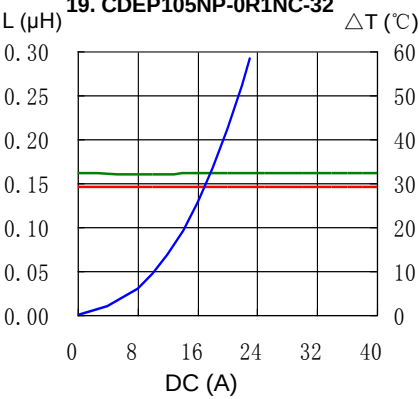
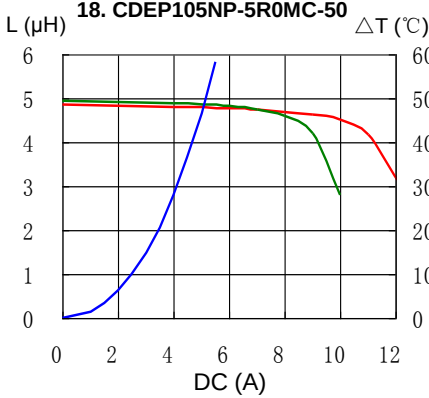
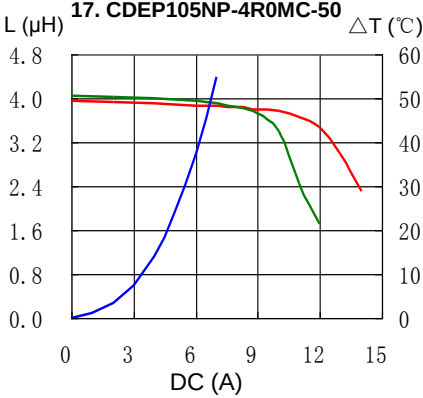
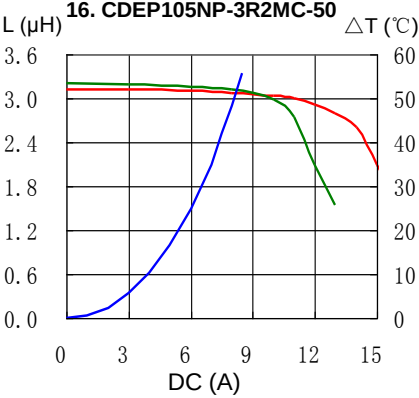
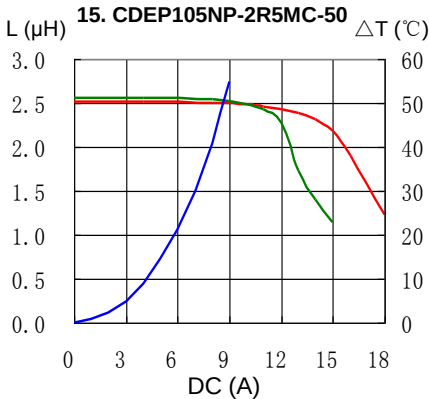
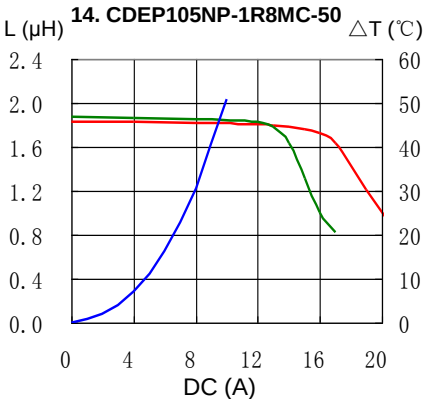
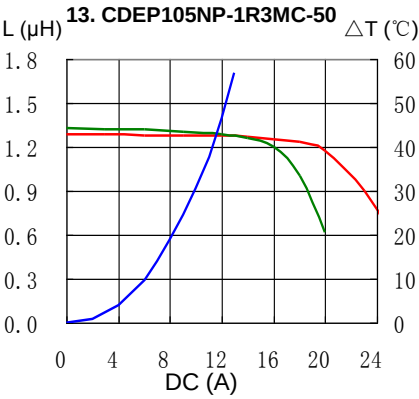
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CDEP105



Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) — ΔT

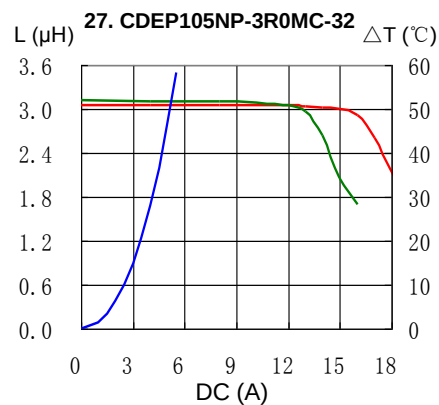
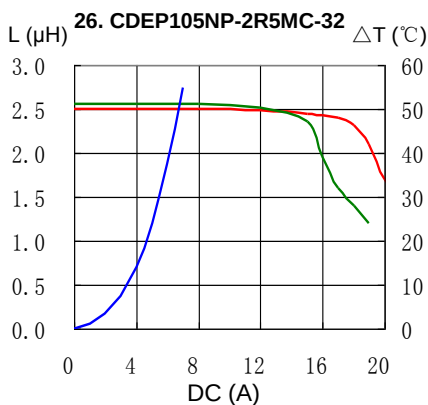
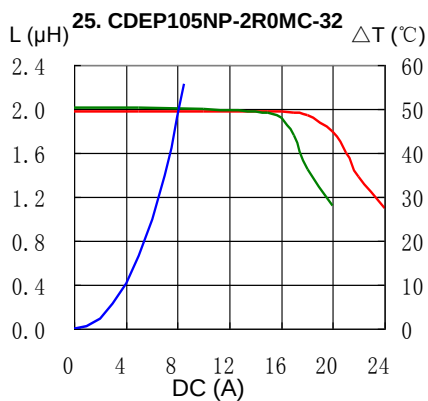


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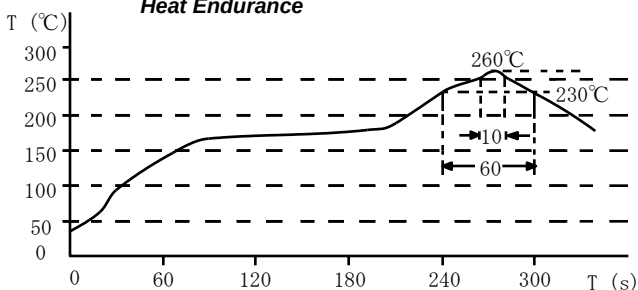
Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) — ΔT

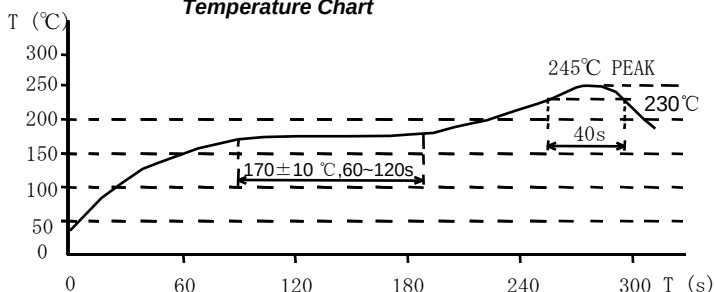


Solder Reflow Condition

Heat Endurance



Temperature Chart



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