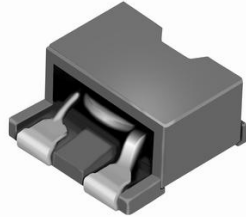




**THE DATASHEET OF  
CDEP105-1R3MC-50**



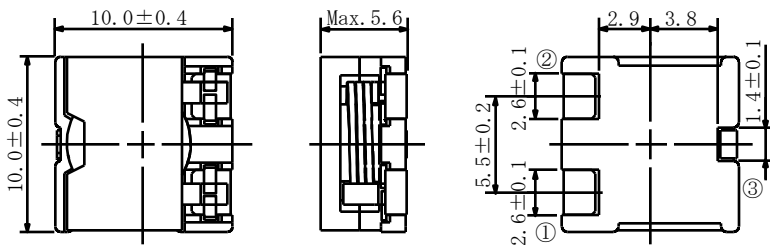
# SMD Power Inductor CDEP105



## 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]



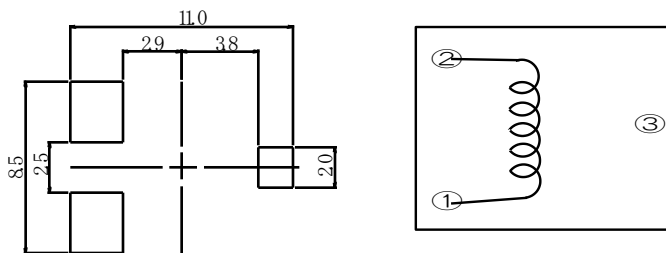
## Environmental Data

- 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 ( $\mu\text{H}$ ) ※1	D.C.R.. (m $\Omega$ ) [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-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



## Electrical Characteristics2 – Standard Type

PART NO.	STAMP	INDUCTANCE ( $\mu\text{H}$ ) ※1	D.C.R. (m $\Omega$ ) [MAX.] (at 20°C)	SATURATION CURRENT (A) ※2		TEMPERATURE RISE CURRENT (A) ※3 $\Delta\text{T}=40^\circ\text{C}$
				(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 ( $\mu\text{H}$ ) ※1	D.C.R. (m $\Omega$ ) [MAX.] (at 20°C)	SATURATION CURRENT (A) ※2		TEMPERATURE RISE CURRENT (A) ※3 $\Delta\text{T}=40^\circ\text{C}$
				(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.

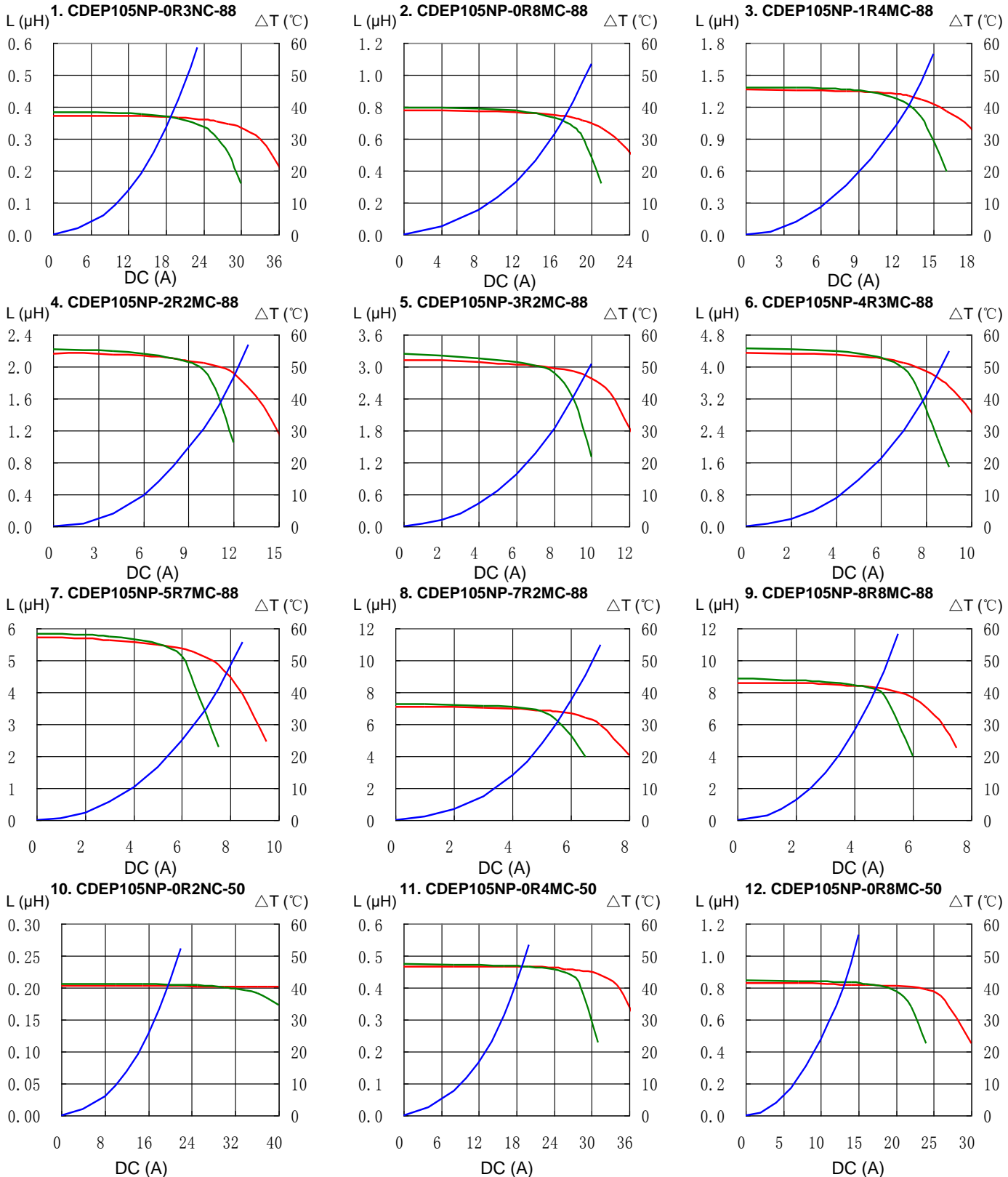
※2. Saturation current: The value of D.C. current when the inductance decreases to 65% (while the tolerance is  $\pm$ 30%) or 75% (while the tolerance is  $\pm$ 20%) of it's nominal.

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



## Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) —  $\Delta T$

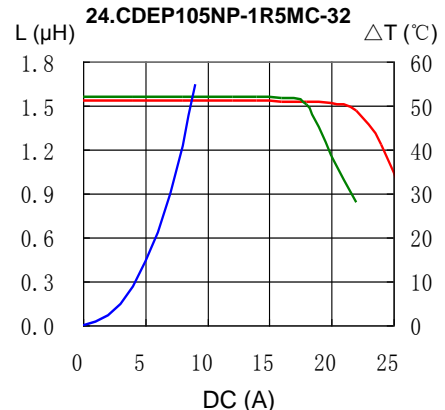
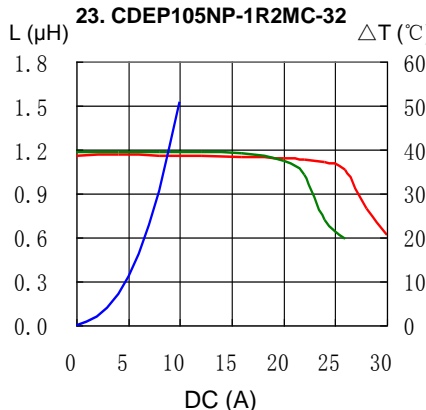
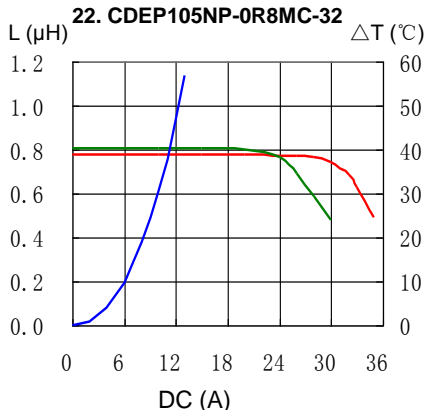
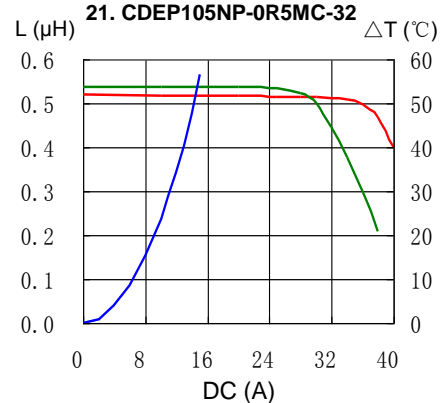
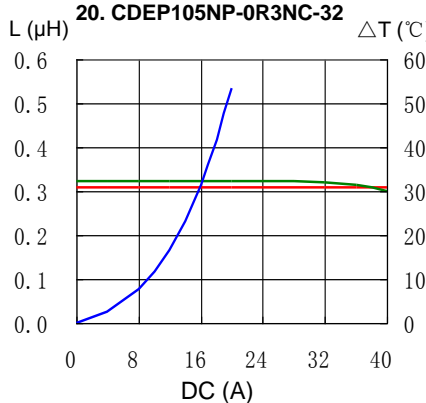
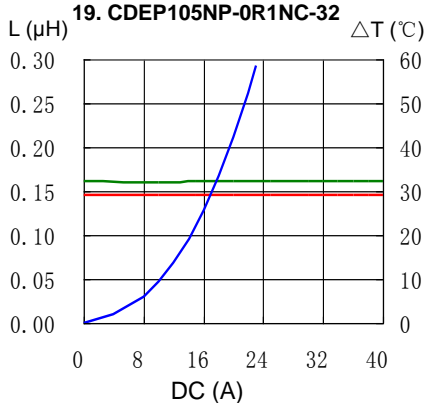
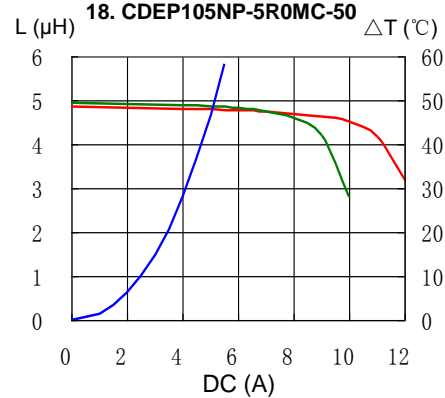
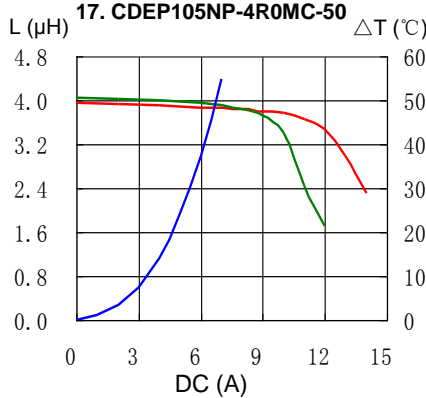
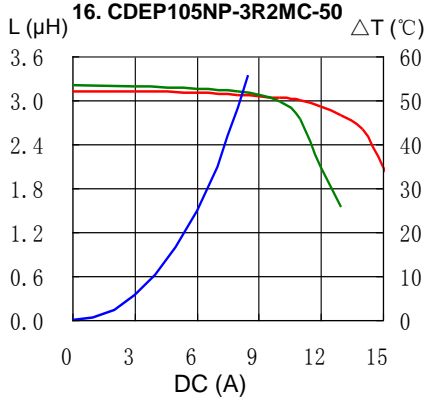
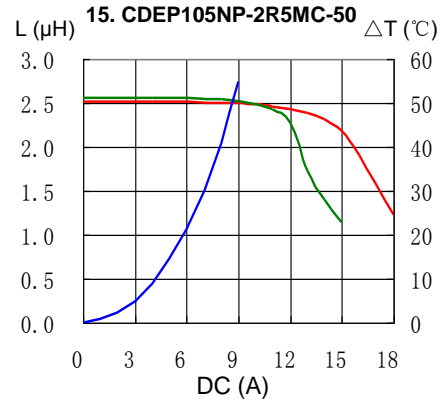
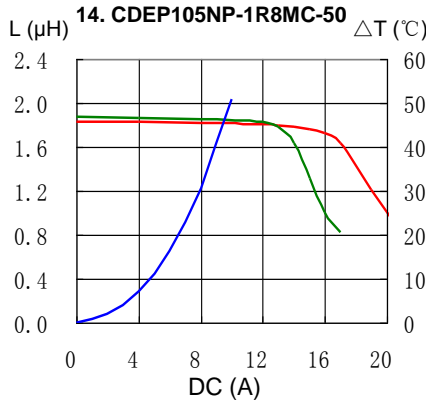
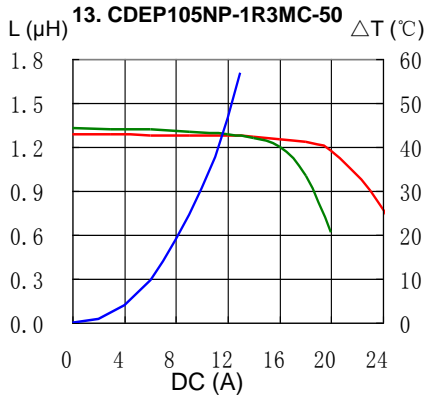


# SMD Power Inductor CDEP105



## Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) —  $\Delta T$

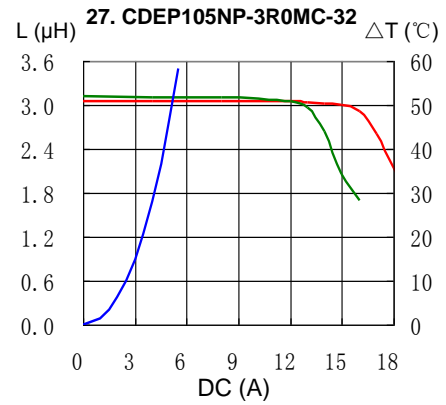
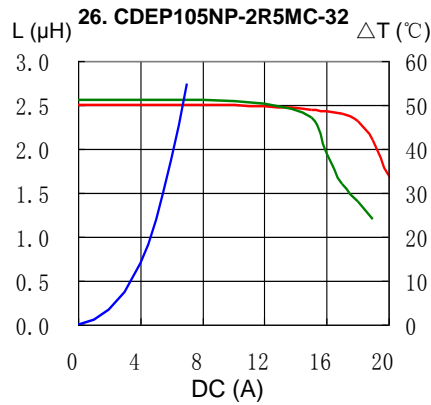
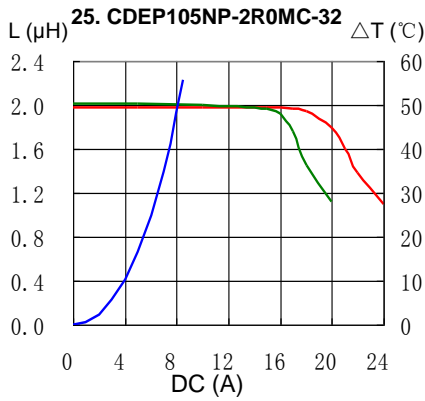


# SMD Power Inductor CDEP105



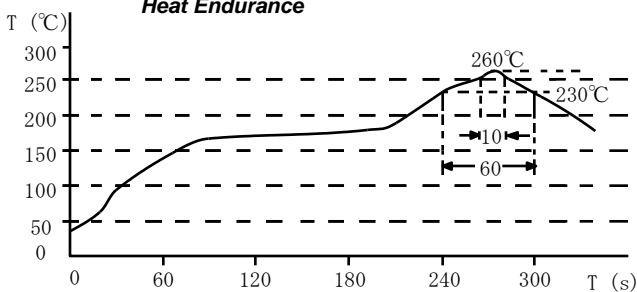
## Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) —  $\Delta T$

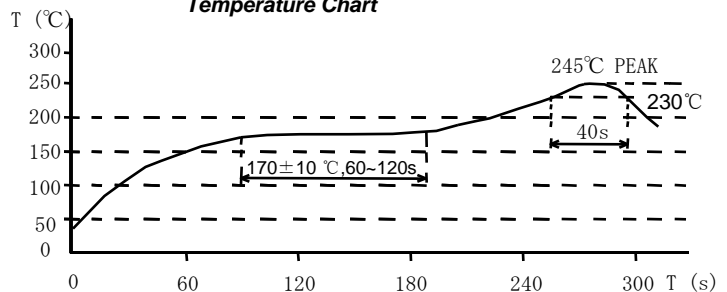


## Solder Reflow Condition

Heat Endurance



Temperature Chart



Please refer to the sales offices on our website - <http://www.sumida.com>

### Hong Kong

Tel.+852-2880-6781  
FAX.+852-2565-9600  
[sales@hk.sumida.com](mailto:sales@hk.sumida.com)

### Saitama(Japan)

Tel.+81-48-691-7300  
FAX.+81-48-691-7340  
[sales@jp.sumida.com](mailto:sales@jp.sumida.com)

### Chicago

Tel.+1-847-545-6700  
FAX. +1-847-545-6720  
[sales@us.sumida.com](mailto:sales@us.sumida.com)

### Shanghai

Tel.+86-21-5836-3299  
FAX.+86-21-5836-3266  
[shanghai.sales@cn.sumida.com](mailto:shanghai.sales@cn.sumida.com)

### Seoul

Tel.+82-2-6237-0777  
FAX.+82-2-6237-0778  
[sales@kr.sumida.com](mailto:sales@kr.sumida.com)

### Obernzell

Tel.+49-8591-937-0  
FAX. +49-8591-937-103  
[contact@eu.sumida.com](mailto:contact@eu.sumida.com)

### Shenzhen

Tel.+86-755-8291-0228  
FAX.+86-755-8291-0338  
[shenzhen.sales@cn.sumida.com](mailto:shenzhen.sales@cn.sumida.com)

### Singapore

Tel.+65-6296-3388  
FAX.+65-6841-4426  
[sales@sg.sumida.com](mailto:sales@sg.sumida.com)

### Neumarkt

Tel.+49-9181-4509-110  
FAX. +49-9181-4509-310  
[infocomp@eu.sumida.com](mailto:infocomp@eu.sumida.com)

### Taipei

Tel.+886-2-8751-2737  
FAX.+886-2-8751-2738  
[sales@tw.sumida.com](mailto:sales@tw.sumida.com)

### San Jose

Tel.+1-408-321-9660  
FAX.+1-408-321-9308  
[sales@us.sumida.com](mailto:sales@us.sumida.com)

## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

- ⊖ [View CDEP105-1R3MC-50 on WIN SOURCE](#)
- ⊖ [Sumida America Components Inc. Information](#)

## Optimize Your Supply Chain with WIN SOURCE Solutions

- ✓ Global Sourcing Solution
- ✓ Obsolete Management
- ✓ Cost Control Management
- ✓ Shortage Management
- ✓ Alternative Solution
- ✓ Excess Inventory Management