



# THE DATASHEET OF CDRH105RNP-1R5NC



# SMD Power Inductor

## CDRH105R



### Description

- Ferrite drum core construction.
- Magnetically shielded.
- L×W×H: 10.5×10.3×5.1mm Max.
- Product weight: 1.8g(Ref.)
- Moisture Sensitivity Level: 1
- RoHS compliance.

### Environmental Data

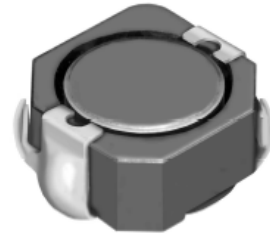
- Operating temperature range: -40°C~+100°C (including coil's self temperature rise)
- Storage temperature range: -40°C~+100°C
- Solder reflow temperature: 260 °C peak.

### Packaging

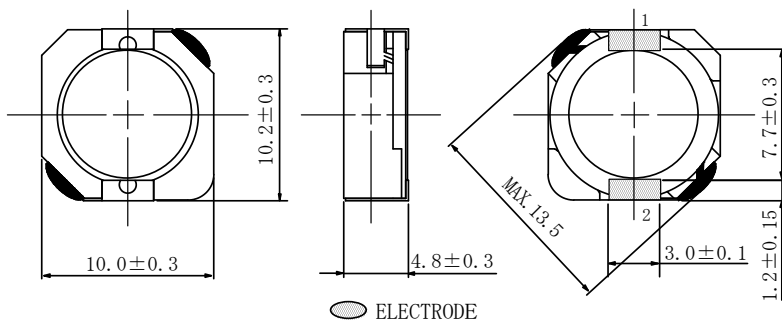
- Carrier tape and reel packaging.
- 12.9" diameter reel.
- 500pcs per reel.

### Applications

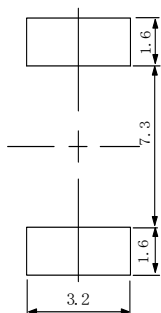
- Ideally used in Notebook PC, LCD TV, DVD, Game machine, STB, Projector etc as DC-DC converter inductors.



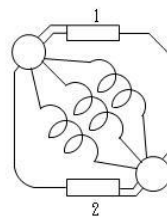
### Dimension - [mm]



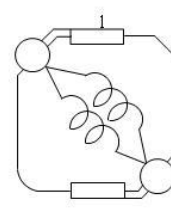
### Land patterns - [mm]



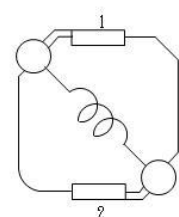
### Schematics



(0.8µH~22µH)



(27µH~82µH)



(100µH~1.0mH)

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### Electrical Characteristics

Part Name	Inductance ( $\mu$ H) [within ] ※ 1	D.C.R. (m $\Omega$ ) Max. (Typ.) (at 20°C)	Saturation Current( Typ.) ( A )※ 2	Temperature Rise Current ( A ) ※ 3
CDRH105RNP-0R8NC	0.8 ± 30%	4.3 (3.3)	17.0	10.5
CDRH105RNP-1R5NC	1.5 ± 30%	5.8 (4.5)	13.0	9.80
CDRH105RNP-2R2NC	2.2 ± 30%	7.2 (5.6)	12.0	8.80
CDRH105RNP-3R3NC	3.3 ± 30%	10.4 (8.0)	9.30	7.80
CDRH105RNP-4R7NC	4.7 ± 30%	12.3 (9.5)	7.25	7.10
CDRH105RNP-6R8NC	6.8 ± 30%	18.0 (14.0)	6.28	6.20
CDRH105RNP-8R2NC	8.2 ± 30%	20.0 (16.0)	5.90	5.80
CDRH105RNP-100NC	10 ± 30%	26.0 (20.0)	5.35	5.00
CDRH105RNP-120NC	12 ± 30%	33.0 (25.0)	4.50	4.40
CDRH105RNP-150NC	15 ± 30%	41.0 (32.0)	4.15	3.90
CDRH105RNP-180NC	18 ± 30%	46.0 (35.0)	3.85	3.70
CDRH105RNP-220NC	22 ± 30%	61.0 (47.0)	3.60	3.30
CDRH105RNP-270NC	27 ± 30%	69.0 (53.0)	3.25	3.20
CDRH105RNP-330NC	33 ± 30%	84.0 (65.0)	2.95	2.75
CDRH105RNP-390NC	39 ± 30%	106 (82.0)	2.73	2.65
CDRH105RNP-470NC	47 ± 30%	130 (100)	2.38	2.30
CDRH105RNP-560NC	56 ± 30%	149 (115)	2.33	2.15
CDRH105RNP-680NC	68 ± 30%	201 (155)	1.90	1.75
CDRH105RNP-820NC	82 ± 30%	227 (175)	1.75	1.68
CDRH105RNP-101NC	100 ± 30%	253 (195)	1.61	1.52
CDRH105RNP-121NC	120 ± 30%	303 (233)	1.53	1.43
CDRH105RNP-151NC	150 ± 30%	370 (285)	1.39	1.23
CDRH105RNP-181NC	180 ± 30%	419 (322)	1.24	1.17
CDRH105RNP-221NC	220 ± 30%	500 (385)	1.17	1.08
CDRH105RNP-271NC	270 ± 30%	672 (512)	0.97	0.92
CDRH105RNP-331NC	330 ± 30%	812 (625)	0.89	0.85
CDRH105RNP-391NC	390 ± 30%	953 (733)	0.81	0.80
CDRH105RNP-471NC	470 ± 30%	1289 (992)	0.77	0.65
CDRH105RNP-561NC	560 ± 30%	1430 (1100)	0.71	0.62
CDRH105RNP-681NC	680 ± 30%	1599 (1230)	0.64	0.60
CDRH105RNP-821NC	820 ± 30%	1768 (1360)	0.59	0.57
CDRH105RNP-102NC	1000 ± 30%	1989 (1530)	0.56	0.52

※1 Inductance measuring condition: at 100kHz.

※2 The saturation current: This indicates the value of DC current when the inductance decreases to 65% of it's nominal.

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

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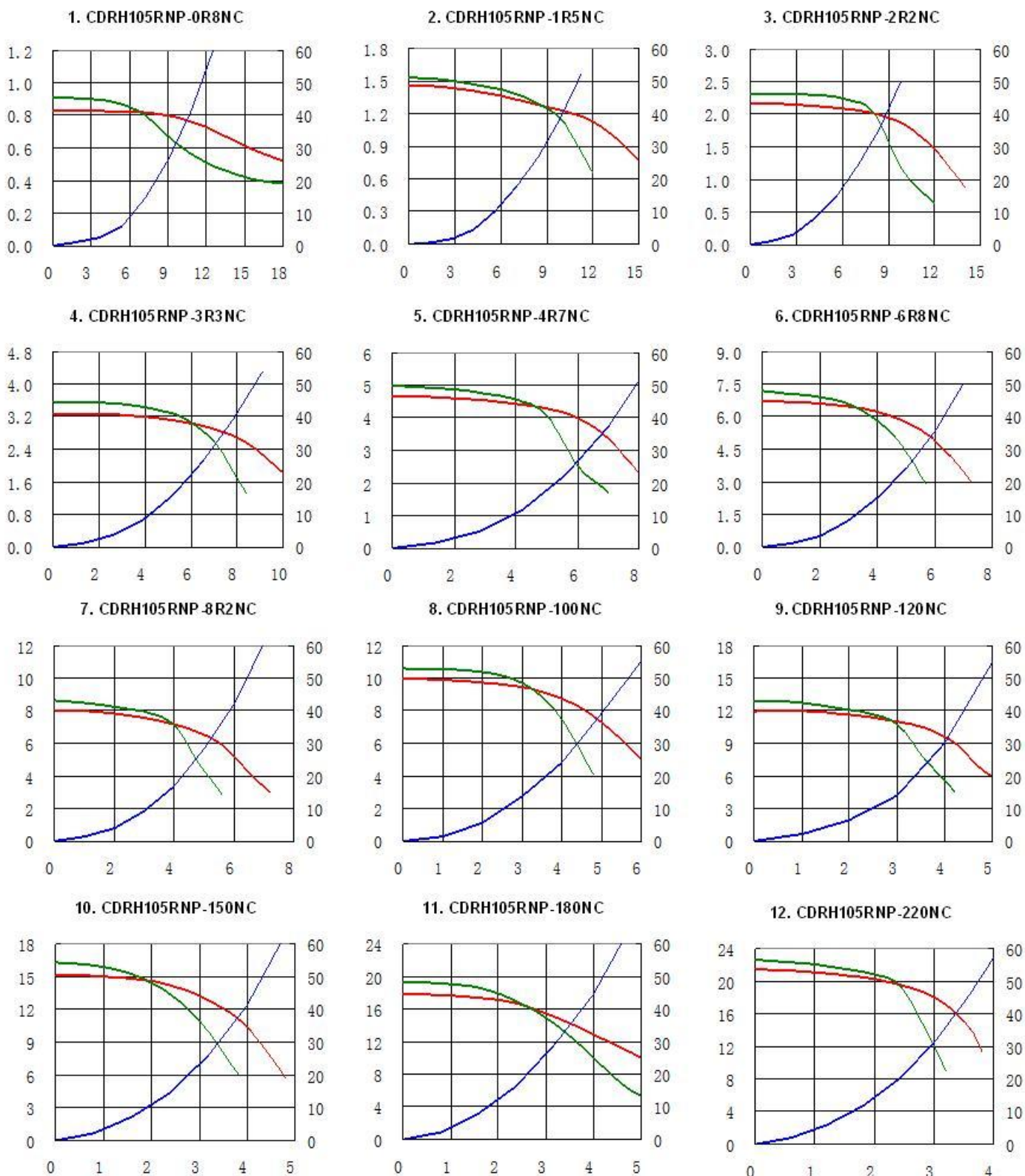
# SMD Power Inductor

## CDRH105R



### Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) —  $\Delta T$



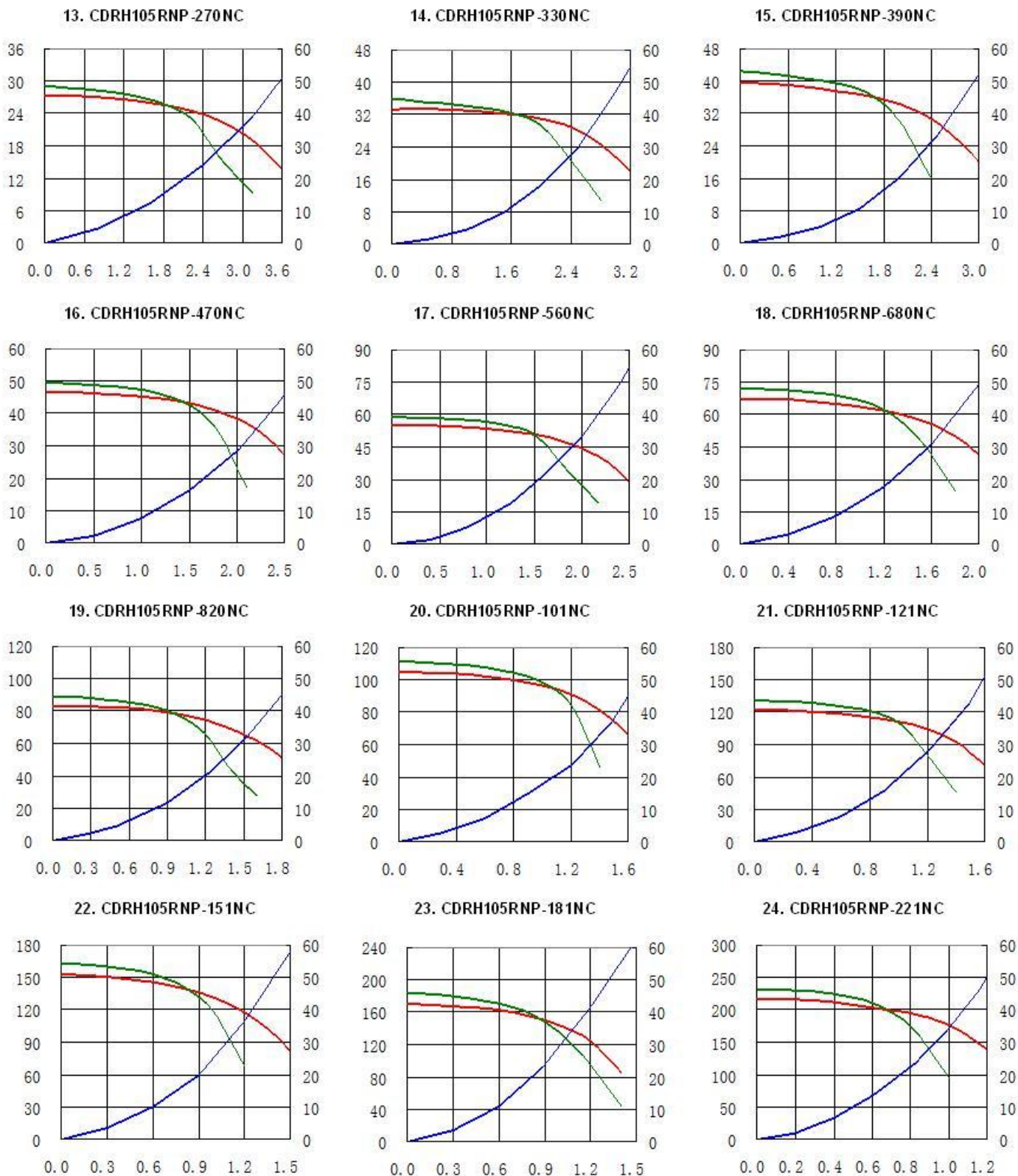
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# SMD Power Inductor

## CDRH105R



**Saturation Current & Temperature Rise Graph** — L (20°C) — L (100°C) —  $\Delta T$



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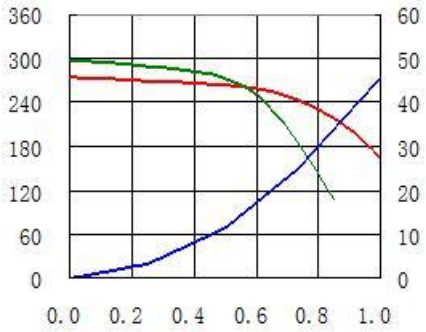
# SMD Power Inductor

## CDRH105R

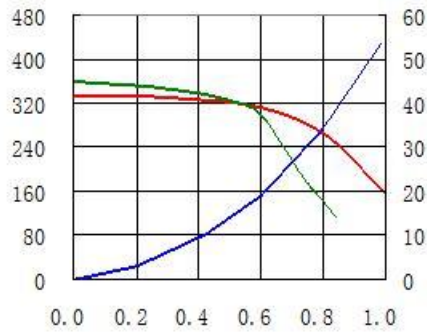


**Saturation Current & Temperature Rise Graph** — L (20°C) — L (100°C) —  $\Delta T$

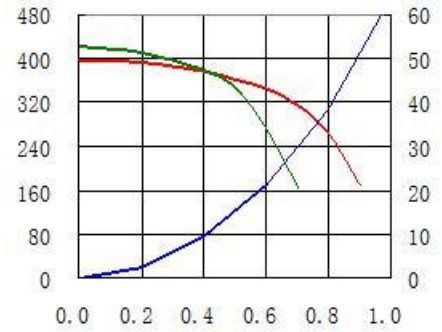
25. CDRH105RNP-271NC



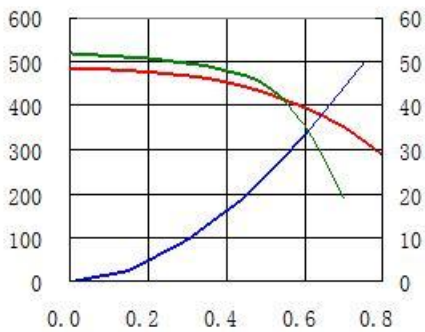
26. CDRH105RNP-331NC



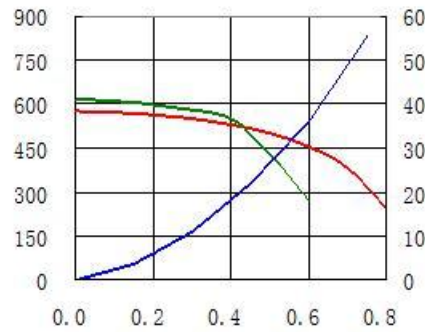
27. CDRH105RNP-391NC



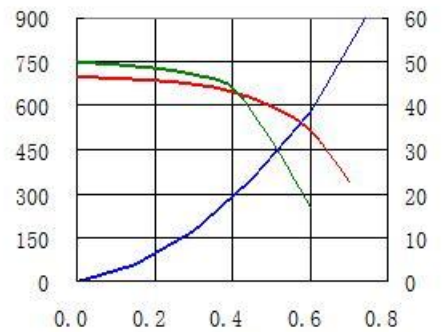
28. CDRH105RNP-471NC



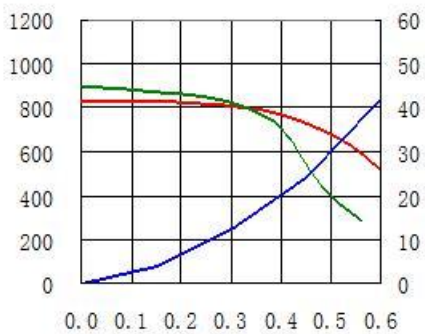
29. CDRH105RNP-561NC



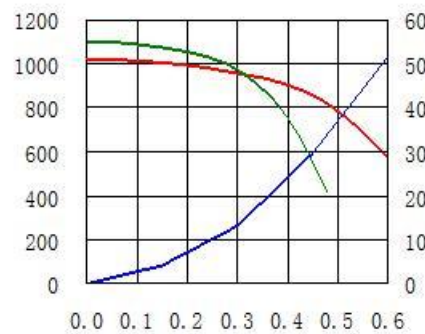
30. CDRH105RNP-681NC



31. CDRH105RNP-821NC



32. CDRH105RNP-102NC



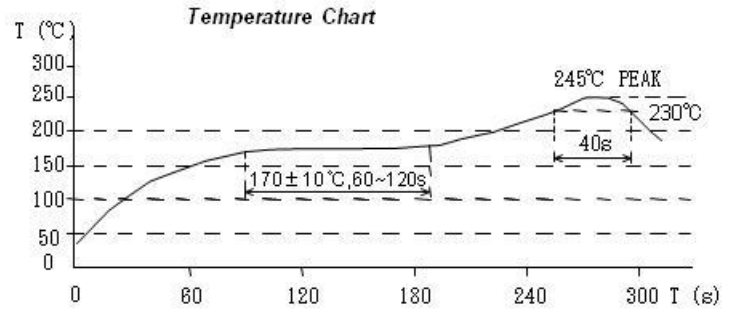
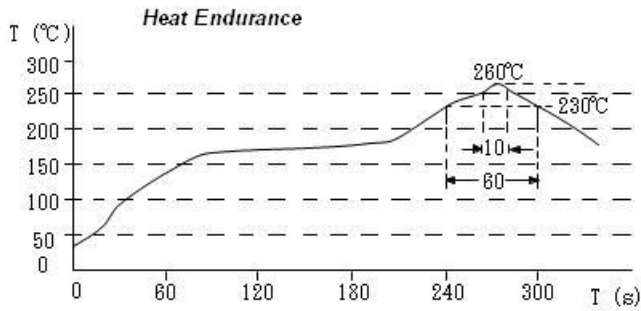
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### Solder Reflow Condition



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