



**THE DATASHEET OF
CDRH127NP-331MC**



SMD Power Inductor CDRH127



Description

- Ferrite drum core construction.
- Magnetically shielded.
- L × W × H: 12.3 × 12.3 × 8.0 mm Max.
- Product weight: 3.6g(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.

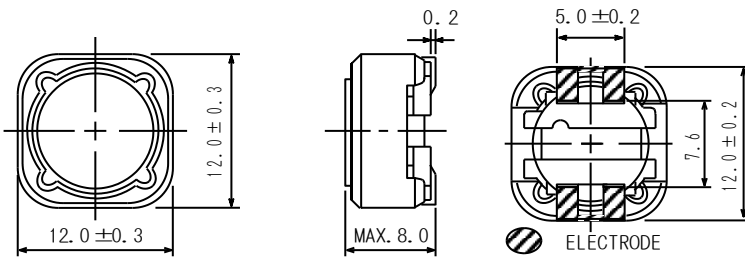
Packaging

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

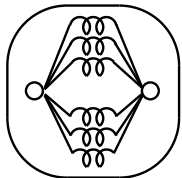
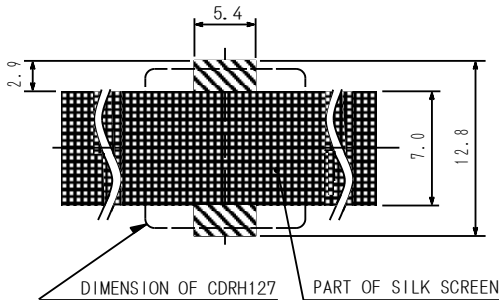
Applications

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

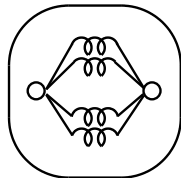
Dimension - [mm]



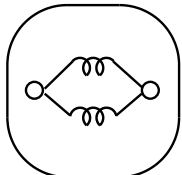
Land pattern and Schematics - [mm]



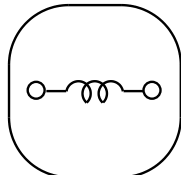
1.2 µH



2.4 µH ~ 56 µH



68 µH ~ 150 µH



180 µH ~ 1 mH



Electrical Characteristics

Part Name	Stamp	Inductance (μH) [within] ※1	D.C.R.(Ω) Max. (Typ.) (at 20°C)	Rated Current (A) ※2
CDRH127NP-1R2NC	1R2	+40% 1.2-20%	7.0m(5.2m)	9.80
CDRH127NP-2R4NC	2R4	+40% 2.4-20%	11.5m(8.5m)	8.00
CDRH127NP-3R5NC	3R5	+40% 3.5-20%	13.5m(10.0m)	7.50
CDRH127NP-4R7NC	4R7	+40% 4.7-20%	15.8m(11.7m)	6.80
CDRH127NP-6R1NC	6R1	+40% 6.1-20%	17.6m(13.0m)	6.60
CDRH127NP-7R6NC	7R6	+40% 7.6-20%	20.0m(15.0m)	5.90
CDRH127NP-100MC	100	10 \pm 20%	21.6m(16.0m)	5.40
CDRH127NP-120MC	120	12 \pm 20%	24.3m(18.0m)	4.90
CDRH127NP-150MC	150	15 \pm 20%	27.0m(20.0m)	4.50
CDRH127NP-180MC	180	18 \pm 20%	39.2m(29.0m)	3.90
CDRH127NP-220MC	220	22 \pm 20%	43.2m(32.0m)	3.60
CDRH127NP-270MC	270	27 \pm 20%	45.9m(34.0m)	3.40
CDRH127NP-330MC	330	33 \pm 20%	64.8m(48.0m)	3.00
CDRH127NP-390MC	390	39 \pm 20%	72.9m(54.0m)	2.75
CDRH127NP-470MC	470	47 \pm 20%	0.10 (76.0m)	2.50
CDRH127NP-560MC	560	56 \pm 20%	0.11 (83.0m)	2.35
CDRH127NP-680MC	680	68 \pm 20%	0.14 (0.10)	2.10
CDRH127NP-820MC	820	82 \pm 20%	0.16 (0.12)	1.95
CDRH127NP-101MC	101	100 \pm 20%	0.22 (0.17)	1.70
CDRH127NP-121MC	121	120 \pm 20%	0.25 (0.18)	1.60
CDRH127NP-151MC	151	150 \pm 20%	0.28 (0.21)	1.42
CDRH127NP-181MC	181	180 \pm 20%	0.35 (0.26)	1.30
CDRH127NP-221MC	221	220 \pm 20%	0.39 (0.29)	1.16
CDRH127NP-271MC	271	270 \pm 20%	0.56 (0.42)	1.06
CDRH127NP-331MC	331	330 \pm 20%	0.64 (0.47)	0.95
CDRH127NP-391MC	391	390 \pm 20%	0.70 (0.52)	0.88
CDRH127NP-471MC	471	470 \pm 20%	0.98 (0.73)	0.79
CDRH127NP-561MC	561	560 \pm 20%	1.07 (0.79)	0.73
CDRH127NP-681MC	681	680 \pm 20%	1.46 (1.12)	0.67
CDRH127NP-821MC	821	820 \pm 20%	1.64 (1.26)	0.60
CDRH127NP-102MC	102	1000 \pm 20%	1.82 (1.40)	0.55

※1. Inductance measuring condition: 1.2 μH ~ 7.6 μH ; at 100 kHz
10 μH ~ 1 mH ; at 1 kHz

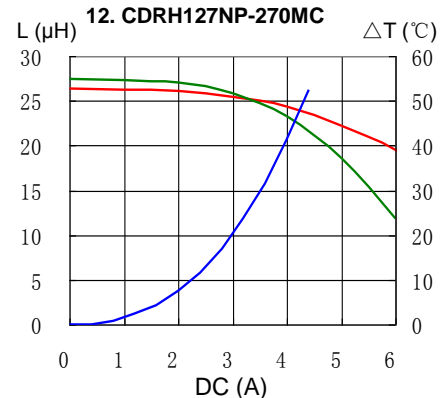
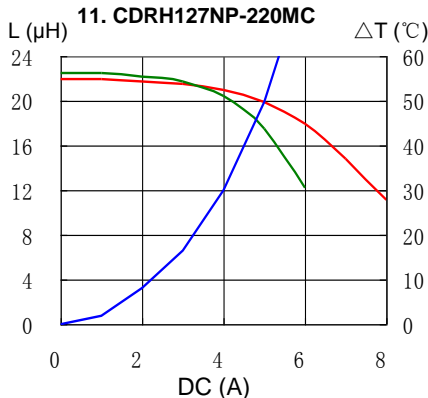
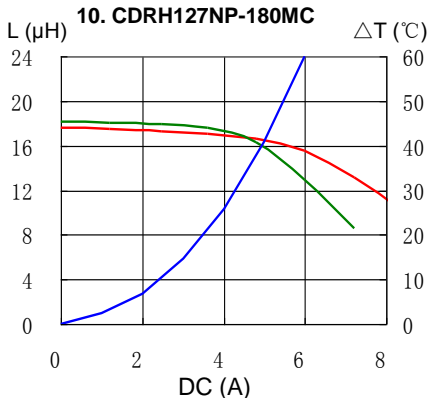
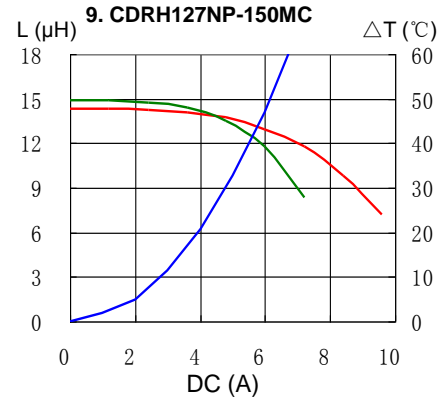
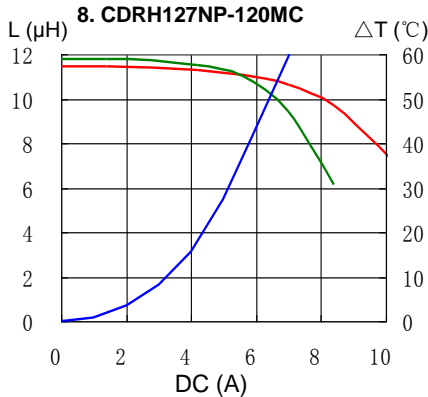
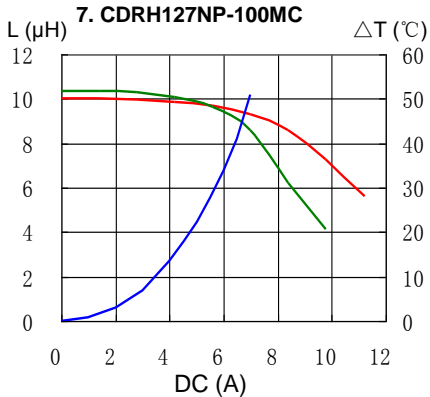
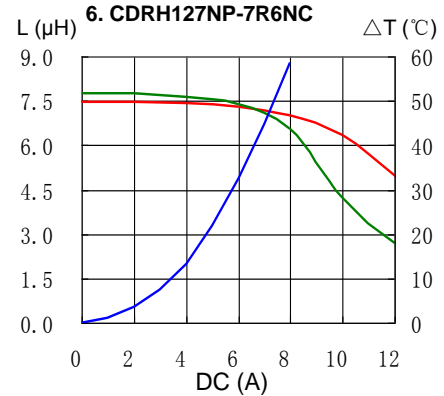
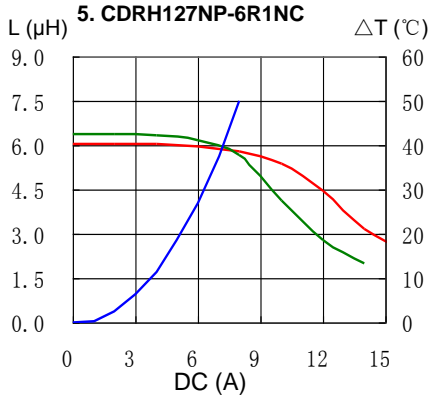
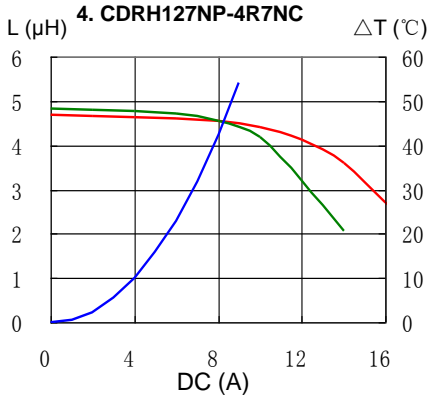
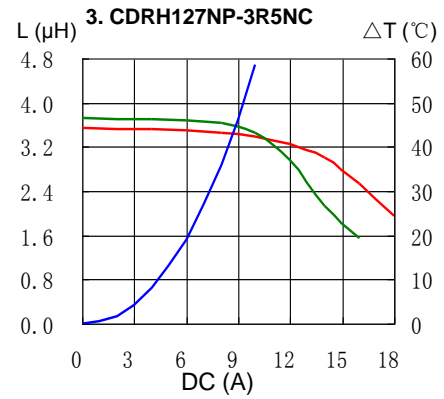
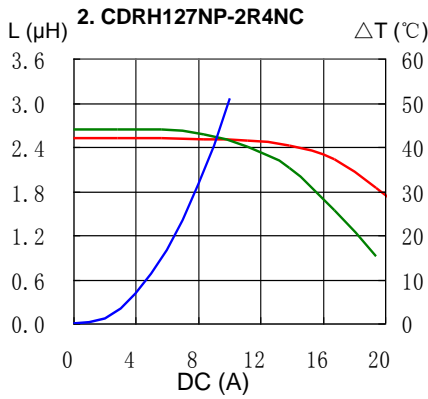
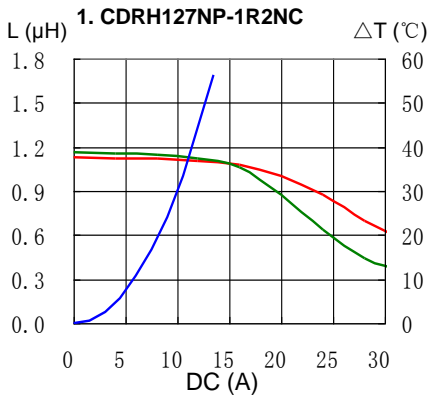
※2. Rated current: The DC current at which the inductance decreases to 75% of its nominal value or when $\Delta t=40^\circ\text{C}$, whichever is lower .

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Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) — ΔT

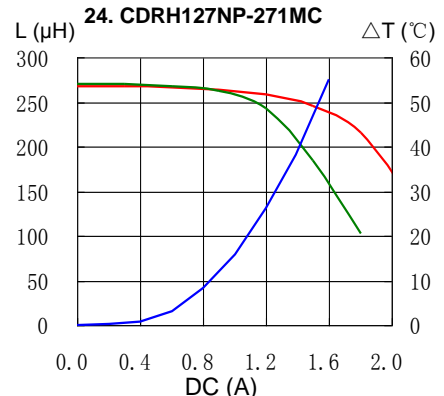
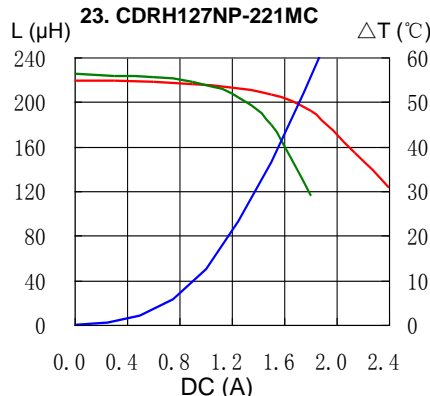
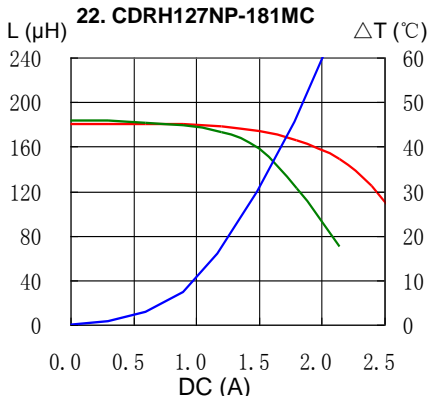
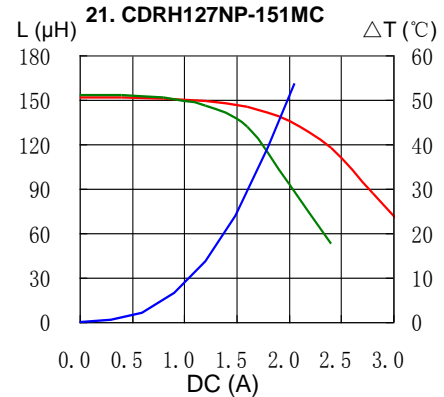
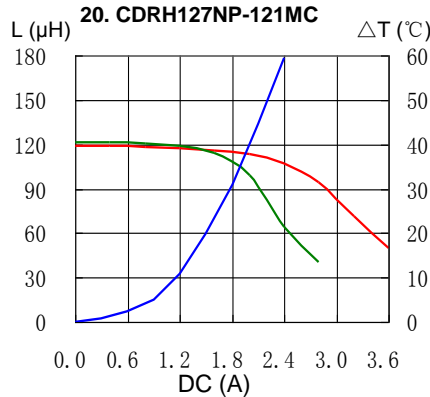
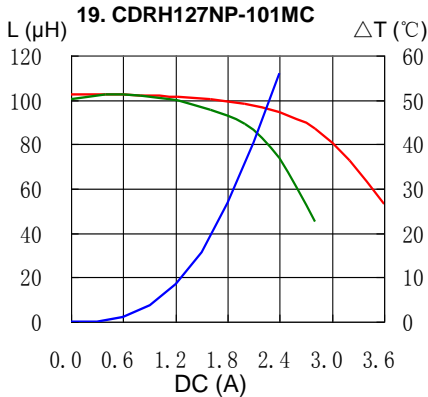
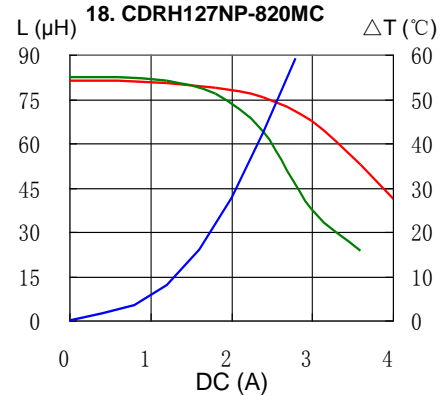
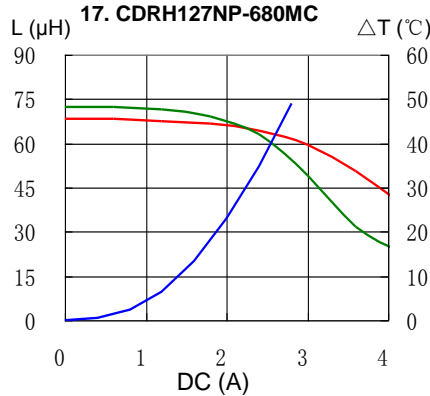
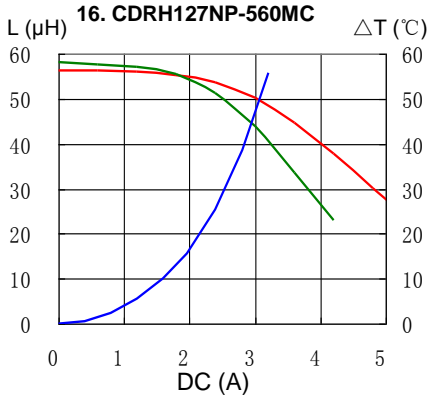
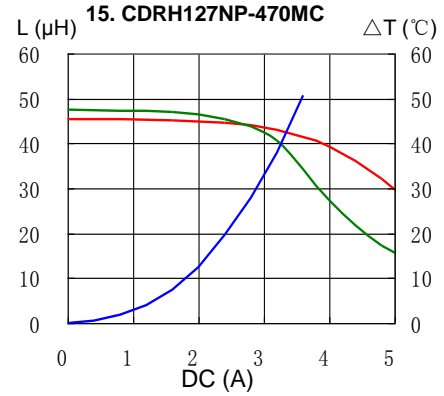
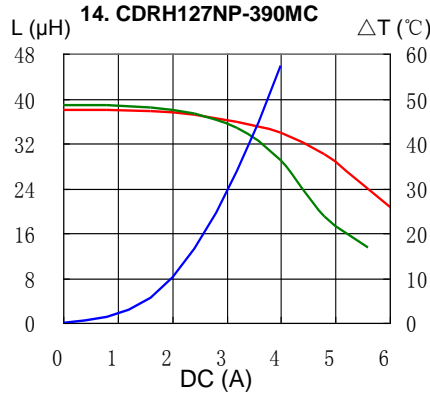
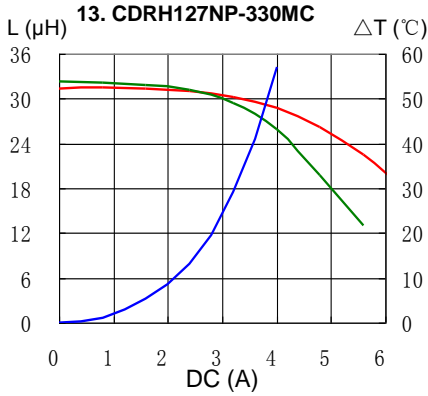


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Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) — ΔT

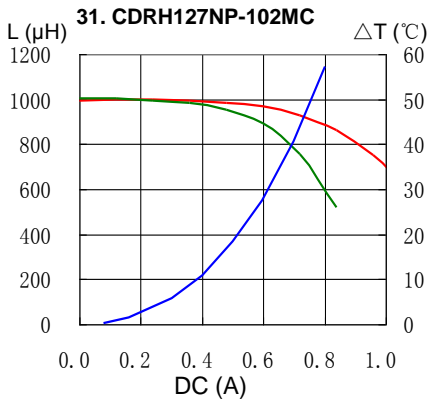
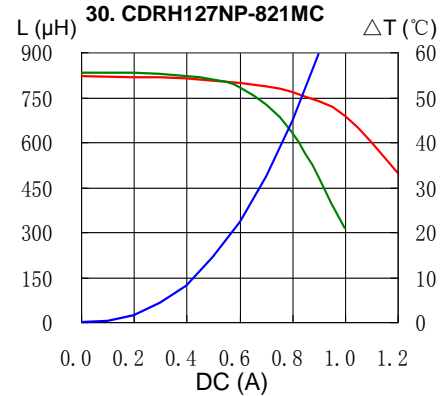
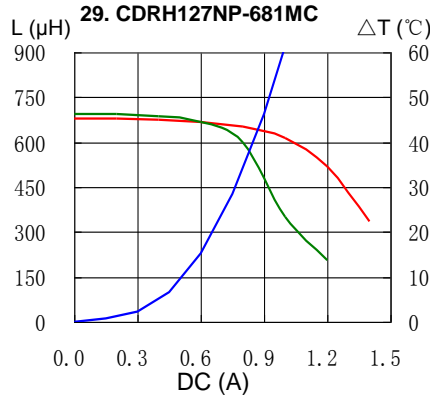
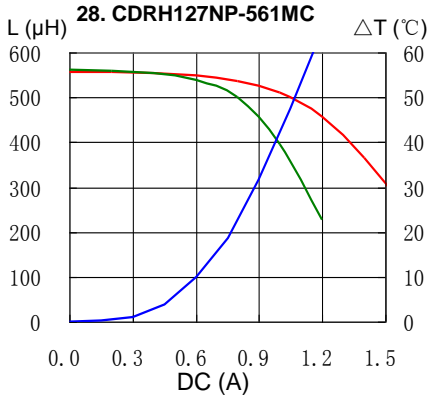
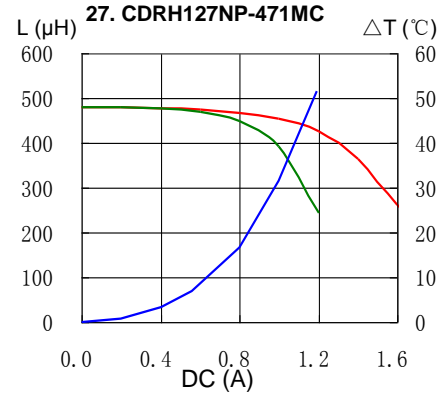
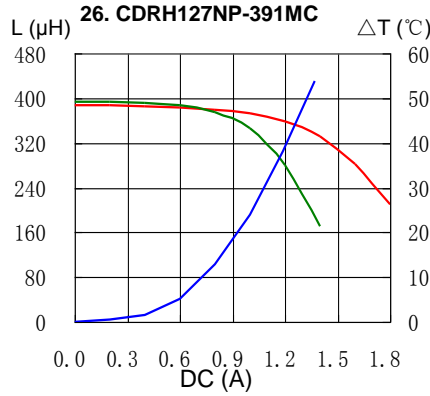
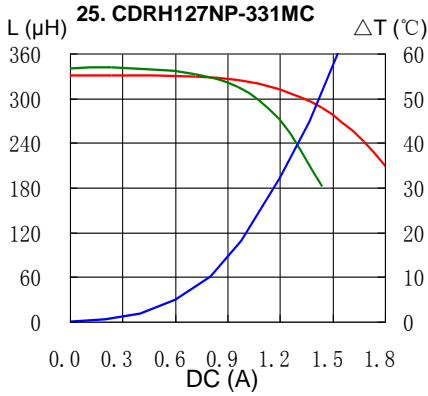


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Saturation Current & Temperature Rise Graph

— L (20°C) — L (100°C) — ΔT



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Solder Reflow Condition

Heat Endurance



Temperature Chart



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

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