Data Sheet

Customer:	
Product:	**Shielded SMD Power Inductor – SDRH Series**
Sizes.:	**0830/0840/0845**
Issued Date:	**11-Apr-25**
Edition:	**REV.B2**

RoHS Compliant

HONG KONG HELISTO INDUSTRIAL LIMITED
香港海利斯特实业有限公司

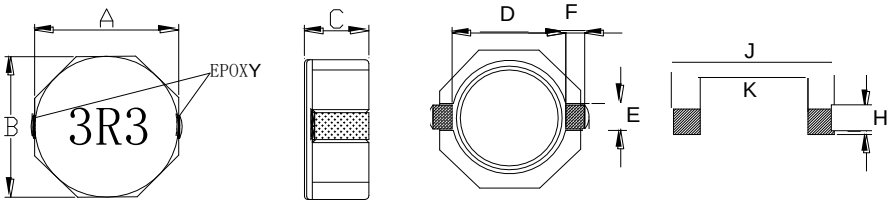
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Shielded SMD Power Inductor





Dimensions

Unit: mm

Codes	A	B	C max.	D ref	E ref	F ref	H	J	K
SDRH0830	8.0±0.3	8.0±0.3	3.0	6.3	2.5	1.2	2.8	10.1	6.1
SDRH0840	8.0±0.3	8.0±0.3	4.0	6.3	2.5	1.2	2.8	10.1	6.1
SDRH0845	8.0±0.3	8.0±0.3	4.5	6.3	2.5	1.2	2.8	10.1	6.1

Features

- Magnetically shielded construction
- ROHS compliance

Applications

- LCD TV
- DC to DC Converters
- Notebook PC

Inductance and rated current ranges

- SDRH0830 1.0～100μH 6.5～0.75A
- SDRH0840 1.8～100μH 7.0～1.05A
- SDRH0845 1.0～330μH 9.0～0.65A
- Test equipment:
  L: HP4284A LCR meter
  DCR: Milli-ohm meter
- Electrical specifications at 25°C

Characteristics

- Rated DC Current : The current when the inductance becomes 35% lower than its initial value.
- Operating temperature: -40～125°C

Product Identification

SDRH	0830	N	T	101
Product Type	Dimensions (AxBxC)	Inductor Tolerance	Packaging Style	Inductance
	0830: 8.0x8.0x3.0 0840: 8.0x8.0x4.0 0845: 8.0x8.0x4.5	N: ±30%	T: Tape and Reel	1R0: 1.0μH 470: 47μH 101: 100μH

■Electrical Characteristics

SDRH0830 Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (mΩ) max.	IDC (A) max.
SDRH0830□T1R0	1.0	N	100KHz, 0.25V	11.0	6.50
SDRH0830□T2R5	2.5	N	100KHz, 0.25V	15.6	4.50
SDRH0830□T3R3	3.3	N	100KHz, 0.25V	18.2	4.00
SDRH0830□T4R7	4.7	N	100KHz, 0.25V	24.7	3.40
SDRH0830□T7R3	7.3	N	100KHz, 0.25V	39.0	2.80
SDRH0830□T100	10	N	100KHz, 0.25V	47.0	2.50
SDRH0830□T150	15	N	100KHz, 0.25V	69.0	1.90
SDRH0830□T220	22	N	100KHz, 0.25V	99.0	1.60
SDRH0830□T330	33	N	100KHz, 0.25V	156	1.30
SDRH0830□T470	47	N	100KHz, 0.25V	195	1.15
SDRH0830□T680	68	N	100KHz, 0.25V	286	0.92
SDRH0830□T101	100	N	100KHz, 0.25V	430	0.75

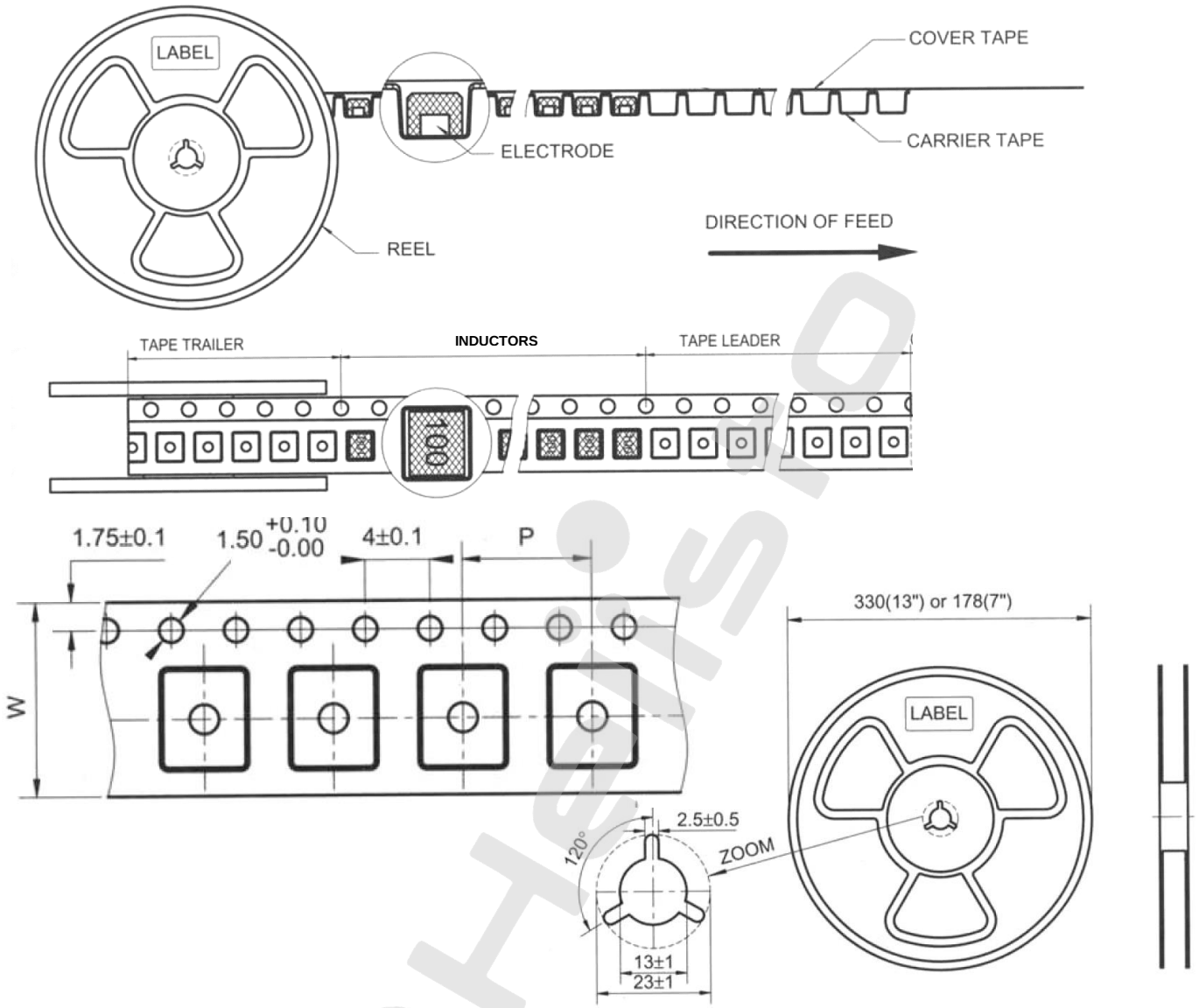
SDRH0840 Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (mΩ) max.	IDC (A) max.
SDRH0840□T1R8	1.8	N	100KHz, 0.1V	15.6	7.00
SDRH0840□T2R5	2.5	N	100KHz, 0.1V	17.5	6.50
SDRH0840□T3R5	3.5	N	100KHz, 0.1V	24.0	5.00
SDRH0840□T4R7	4.7	N	100KHz, 0.1V	29.0	4.60
SDRH0840□T6R0	6.0	N	100KHz, 0.1V	32.0	4.20
SDRH0840□T100	10	N	100KHz, 0.1V	48.0	3.00
SDRH0840□T150	15	N	100KHz, 0.1V	67.0	2.75
SDRH0840□T220	22	N	100KHz, 0.1V	105	2.30
SDRH0840□T330	33	N	100KHz, 0.1V	157	1.75
SDRH0840□T470	47	N	100KHz, 0.1V	189	1.52
SDRH0840□T680	68	N	100KHz, 0.1V	290	1.30
SDRH0840□T101	100	N	100KHz, 0.1V	410	1.05

SDRH0845 Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (mΩ) max.	IDC (A) max.
SDRH0845□T1R0	1.0	N	100KHz, 0.1V	9.50	9.00
SDRH0845□T1R2	1.2	N	100KHz, 0.1V	12.2	8.00
SDRH0845□T1R5	1.5	N	100KHz, 0.1V	13.0	7.80
SDRH0845□T2R0	2.0	N	100KHz, 0.1V	14.0	7.00
SDRH0845□T2R2	2.2	N	100KHz, 0.1V	15.0	6.80
SDRH0845□T2R5	2.5	N	100KHz, 0.1V	16.0	6.60
SDRH0845□T3R3	3.3	N	100KHz, 0.1V	17.0	6.20
SDRH0845□T3R9	3.9	N	100KHz, 0.1V	19.0	5.90
SDRH0845□T4R7	4.7	N	100KHz, 0.1V	22.0	5.60
SDRH0845□T6R8	6.8	N	100KHz, 0.1V	32.0	4.40
SDRH0845□T100	10	N	100KHz, 0.1V	36.0	4.00
SDRH0845□T150	15	N	100KHz, 0.1V	53.0	2.90
SDRH0845□T180	18	N	100KHz, 0.1V	72.0	2.70
SDRH0845□T220	22	N	100KHz, 0.1V	75.0	2.60
SDRH0845□T270	27	N	100KHz, 0.1V	100	2.25
SDRH0845□T330	33	N	100KHz, 0.1V	125	2.20
SDRH0845□T470	47	N	100KHz, 0.1V	150	1.80
SDRH0845□T680	68	N	100KHz, 0.1V	240	1.50
SDRH0845□T101	100	N	100KHz, 0.1V	360	1.30
SDRH0845□T121	120	N	100KHz, 0.1V	500	1.00
SDRH0845□T331-1	330	M	100KHz, 0.25V	1700	0.65

■Tape and Reel specifications



Unit: mm

Type	Tape size		Parts Per Reel
	W	P	13"
SDRH0830	24	12	1000
SDRH0840	24	12	1000
SDRH0845	24	12	1000

■SMT Power Inductor Environmental Specifications

Environmental test

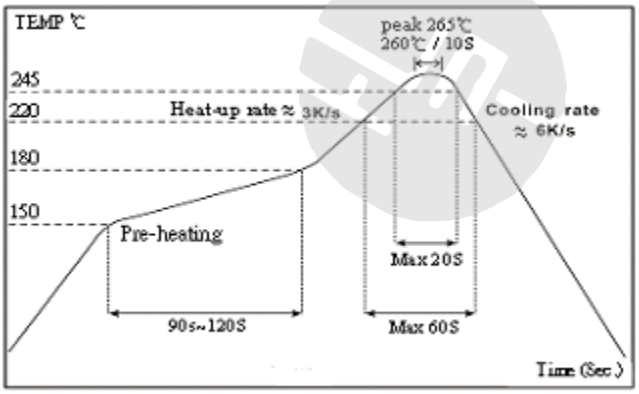
Test Items	Specifications	Test Conditions / Test Methods
High temperature Storage test	No case deformation or change in appearance. △L/L≦10%	Temperature 85±2℃, Time: 48±2 hours, Tested after 1hour at room temperature.
Low temperature Storage test		Temperature -25±2℃, Time: 48±2 hours, Tested after 1hour at room temperature.
Humidity test		Temperature 40±2℃, 90~95% relative humidity Time: 96±2 hours, apply rated current, Tested after 1hour at room temperature.
Thermal shock test		First -25℃ 30minutes then 25℃ 10 minutes last 85℃ 30 minutes, as 1 cycle. Go through 5 cycles. Tested after 1 hour at room temperature.

Mechanical test

Test Items	Specifications	Test Conditions / Test Methods
Solderability test	Terminal area must have 90% minimum solder coverage.	Product with Lead-free terminal: Dip pads in flux then dip in solder pot at 245±5℃ for 3 seconds.
Resistance to Soldering Heat	No case deformation or change in appearance.	Flux should cover the whole of the sample before heating, then be preheated for about 2 minutes over temperature of 130~150℃. Immersing to 260±5℃ for 10 seconds.
Vibration test	No case deformation or change in appearance. △L/L≦10%	Apply frequency 10~55Hz. 1.5mm amplitude in each of perpendicular direction for 2 hours.
Shock resistance		Drop down with 981m/s^2(100G) shock attitude upon a rubber block method shock testing machine, for 1 time. In each of three orientations.

■Storage Temperature: 5℃~25℃ ; Humidity: 25%~80%
■Shelf life: 1 years Max

The condition of reflow (recommendation):



REVISION HISTORY

REVISION	DATE	CHANGE NOTIFICATION	DESCRIPTION
Version B2	Apr 11,2025		-Modify Storage conditions.