

# Wire Wound SMD Power Inductors – SWRH-B Series

Operating Temperature: -25°C~+105°C (Including Self-heating)



## FEATURES

- Various high power inductors are superior to be high saturation
- Suitable for surface mounting equipment

## APPLICATIONS

- Power supply choke for small electrical equipments such as VTR, LCD display, Notebook, communication equipment, and so on.

## PRODUCT IDENTIFICATION

### SWRH

①

### 0602

②

### B

③

### -3R3

④

### N

⑤

### T

⑥

①	Type
SWRH	Wire Wound SMD Type Power Inductors (With Metallic Base)

②	External Dimensions
	0602~1207

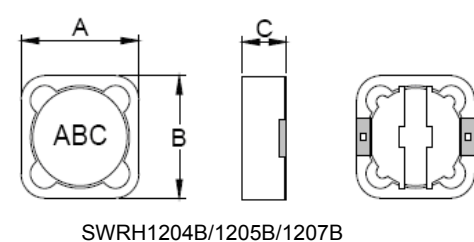
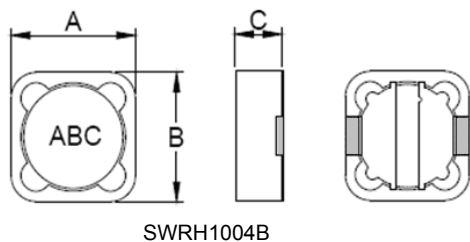
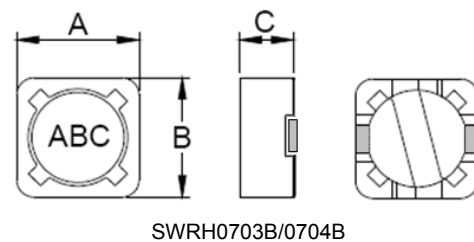
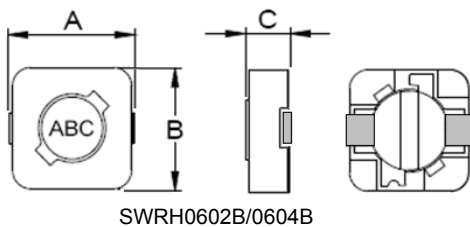
③	Configuration
B	B Type Base

④	Nominal Inductance
Example	Nominal Value
3R3	3.3μH
100	10μH
101	100μH

⑤	Inductance Tolerance
M	±20%
N	±30%

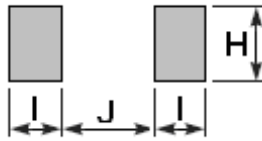
⑥	Packing
T	Tape Carrier Package

## SHAPE AND DIMENSIONS



## SHAPE AND DIMENSIONS

### Recommended Land Pattern



Unit: mm

Series	A max.	B max.	C max.	I typ.	J typ.	H typ.
SWRH0602B	7.0	6.8	3.0	1.4	4.6	1.9
SWRH0604B	7.0	6.8	5.0	1.4	4.6	1.9
SWRH0703B	7.8	7.8	4.0	1.6	4.8	2.2
SWRH0704B	7.8	7.8	5.0	1.6	4.8	2.2
SWRH1004B	10.5	10.5	5.0	2.0	6.8	4.4
SWRH1204B	12.5	12.5	5.0	2.9	7.0	5.4
SWRH1205B	12.5	12.5	6.0	2.9	7.0	5.4
SWRH1207B	12.5	12.5	8.0	2.9	7.0	5.4

## SPECIFICATIONS

### SWRH0602B TYPE

Part Number	Inductance	L Test Condition	Max. DC Resistance	Max. Rated Current
Units	$\mu\text{H}$	Hz, V	$\Omega$	A
Symbol	L	-	DCR	$I_r$
SWRH0602B-3R3NT	3.3±30%	100k, 0.3V	0.068	1.94
SWRH0602B-4R7NT	4.7±30%	100k, 0.3V	0.080	1.63
SWRH0602B-5R6NT	5.6±30%	100k, 0.3V	0.096	1.40
SWRH0602B-100MT	10±20%	1k, 0.3V	0.150	1.10
SWRH0602B-120MT	12±20%	1k, 0.3V	0.200	1.00
SWRH0602B-150MT	15±20%	1k, 0.3V	0.230	0.90
SWRH0602B-180MT	18±20%	1k, 0.3V	0.270	0.80
SWRH0602B-220MT	22±20%	1k, 0.3V	0.340	0.74
SWRH0602B-270MT	27±20%	1k, 0.3V	0.380	0.66
SWRH0602B-330MT	33±20%	1k, 0.3V	0.450	0.59
SWRH0602B-390MT	39±20%	1k, 0.3V	0.490	0.54
SWRH0602B-470MT	47±20%	1k, 0.3V	0.690	0.50
SWRH0602B-560MT	56±20%	1k, 0.3V	0.780	0.46
SWRH0602B-680MT	68±20%	1k, 0.3V	1.070	0.42
SWRH0602B-820MT	82±20%	1k, 0.3V	1.210	0.38
SWRH0602B-101MT	100±20%	1k, 0.3V	1.390	0.34
SWRH0602B-121MT	120±20%	1k, 0.3V	1.900	0.31
SWRH0602B-151MT	150±20%	1k, 0.3V	2.180	0.28
SWRH0602B-181MT	180±20%	1k, 0.3V	2.770	0.26
SWRH0602B-221MT	220±20%	1k, 0.3V	3.120	0.23
SWRH0602B-271MT	270±20%	1k, 0.3V	4.380	0.22
SWRH0602B-331MT	330±20%	1k, 0.3V	4.940	0.19

## SPECIFICATIONS

### SWRH0604B TYPE

Part Number	Inductance	L Test Condition	Max. DC Resistance	Max. Rated Current
Units	$\mu\text{H}$	Hz, V	$\Omega$	A
Symbol	L	-	DCR	I <sub>r</sub>
SWRH0604B-100MT	10±20%	1k, 0.3V	0.120	1.35
SWRH0604B-120MT	12±20%	1k, 0.3V	0.130	1.20
SWRH0604B-150MT	15±20%	1k, 0.3V	0.180	1.10
SWRH0604B-180MT	18±20%	1k, 0.3V	0.240	1.00
SWRH0604B-220MT	22±20%	1k, 0.3V	0.270	0.91
SWRH0604B-270MT	27±20%	1k, 0.3V	0.300	0.82
SWRH0604B-330MT	33±20%	1k, 0.3V	0.330	0.75
SWRH0604B-390MT	39±20%	1k, 0.3V	0.370	0.69
SWRH0604B-470MT	47±20%	1k, 0.3V	0.520	0.62
SWRH0604B-560MT	56±20%	1k, 0.3V	0.560	0.58
SWRH0604B-680MT	68±20%	1k, 0.3V	0.630	0.52
SWRH0604B-820MT	82±20%	1k, 0.3V	0.710	0.47
SWRH0604B-101MT	100±20%	1k, 0.3V	1.030	0.43
SWRH0604B-121MT	120±20%	1k, 0.3V	1.150	0.39
SWRH0604B-151MT	150±20%	1k, 0.3V	1.680	0.35
SWRH0604B-181MT	180±20%	1k, 0.3V	1.870	0.32
SWRH0604B-221MT	220±20%	1k, 0.3V	2.080	0.29
SWRH0604B-271MT	270±20%	1k, 0.3V	2.370	0.26
SWRH0604B-331MT	330±20%	1k, 0.3V	2.670	0.23
SWRH0604B-391MT	390±20%	1k, 0.3V	2.940	0.22
SWRH0604B-471MT	470±20%	1k, 0.3V	3.930	0.20

### SWRH0703B TYPE

Part Number	Inductance	L Test Condition	Max. DC Resistance	Max. Rated Current
Units	$\mu\text{H}$	Hz, V	$\Omega$	A
Symbol	L	-	DCR	I <sub>r</sub>
SWRH0703B-2R2NT	2.2±30%	100k, 0.3V	0.025	3.00
SWRH0703B-3R3NT	3.3±30%	100k, 0.3V	0.035	2.50
SWRH0703B-4R7NT	4.7±30%	100k, 0.3V	0.031	2.00
SWRH0703B-100MT	10±20%	1k, 0.3V	0.072	1.68
SWRH0703B-120MT	12±20%	1k, 0.3V	0.098	1.52
SWRH0703B-150MT	15±20%	1k, 0.3V	0.130	1.33
SWRH0703B-180MT	18±20%	1k, 0.3V	0.140	1.20
SWRH0703B-220MT	22±20%	1k, 0.3V	0.190	1.07
SWRH0703B-270MT	27±20%	1k, 0.3V	0.210	0.96
SWRH0703B-330MT	33±20%	1k, 0.3V	0.240	0.91
SWRH0703B-390MT	39±20%	1k, 0.3V	0.320	0.77
SWRH0703B-470MT	47±20%	1k, 0.3V	0.360	0.76
SWRH0703B-560MT	56±20%	1k, 0.3V	0.470	0.68
SWRH0703B-680MT	68±20%	1k, 0.3V	0.520	0.61
SWRH0703B-820MT	82±20%	1k, 0.3V	0.690	0.57
SWRH0703B-101MT	100±20%	1k, 0.3V	0.790	0.50
SWRH0703B-121MT	120±20%	1k, 0.3V	0.890	0.49
SWRH0703B-151MT	150±20%	1k, 0.3V	1.270	0.43
SWRH0703B-181MT	180±20%	1k, 0.3V	1.450	0.39
SWRH0703B-221MT	220±20%	1k, 0.3V	1.650	0.35
SWRH0703B-271MT	270±20%	1k, 0.3V	2.310	0.32
SWRH0703B-331MT	330±20%	1k, 0.3V	2.620	0.28
SWRH0703B-391MT	390±20%	1k, 0.3V	2.940	0.26

## SPECIFICATIONS

### SWRH0703B TYPE

Part Number	Inductance	L Test Condition	Max. DC Resistance	Max. Rated Current
Units	$\mu\text{H}$	Hz, V	$\Omega$	A
Symbol	L	-	DCR	I <sub>r</sub>
SWRH0703B-471MT	470 $\pm$ 20%	1k, 0.3V	4.180	0.24
SWRH0703B-561MT	560 $\pm$ 20%	1k, 0.3V	4.670	0.22

### SWRH0704B TYPE

Part Number	Inductance	L Test Condition	Max. DC Resistance	Max. Rated Current
Units	$\mu\text{H}$	Hz, V	$\Omega$	A
Symbol	L	-	DCR	I <sub>r</sub>
SWRH0704B-100MT	10 $\pm$ 20%	1k, 0.3V	0.049	1.84
SWRH0704B-120MT	12 $\pm$ 20%	1k, 0.3V	0.058	1.71
SWRH0704B-150MT	15 $\pm$ 20%	1k, 0.3V	0.081	1.47
SWRH0704B-180MT	18 $\pm$ 20%	1k, 0.3V	0.091	1.31
SWRH0704B-220MT	22 $\pm$ 20%	1k, 0.3V	0.110	1.23
SWRH0704B-270MT	27 $\pm$ 20%	1k, 0.3V	0.150	1.12
SWRH0704B-330MT	33 $\pm$ 20%	1k, 0.3V	0.170	0.96
SWRH0704B-390MT	39 $\pm$ 20%	1k, 0.3V	0.230	0.91
SWRH0704B-470MT	47 $\pm$ 20%	1k, 0.3V	0.260	0.88
SWRH0704B-560MT	56 $\pm$ 20%	1k, 0.3V	0.350	0.75
SWRH0704B-680MT	68 $\pm$ 20%	1k, 0.3V	0.380	0.69
SWRH0704B-820MT	82 $\pm$ 20%	1k, 0.3V	0.430	0.61
SWRH0704B-101MT	100 $\pm$ 20%	1k, 0.3V	0.610	0.60
SWRH0704B-121MT	120 $\pm$ 20%	1k, 0.3V	0.660	0.52
SWRH0704B-151MT	150 $\pm$ 20%	1k, 0.3V	0.880	0.46
SWRH0704B-181MT	180 $\pm$ 20%	1k, 0.3V	0.980	0.42
SWRH0704B-221MT	220 $\pm$ 20%	1k, 0.3V	1.170	0.36
SWRH0704B-271MT	270 $\pm$ 20%	1k, 0.3V	1.640	0.34
SWRH0704B-331MT	330 $\pm$ 20%	1k, 0.3V	1.860	0.32
SWRH0704B-391MT	390 $\pm$ 20%	1k, 0.3V	2.850	0.29
SWRH0704B-471MT	470 $\pm$ 20%	1k, 0.3V	3.010	0.26
SWRH0704B-561MT	560 $\pm$ 20%	1k, 0.3V	3.620	0.23

### SWRH1004B TYPE

Part Number	Inductance	L Test Condition	Max. DC Resistance	Max. Rated Current
Units	$\mu\text{H}$	Hz, V	$\Omega$	A
Symbol	L	-	DCR	I <sub>r</sub>
SWRH1004B-2R2NT	2.2 $\pm$ 30%	100k, 0.3V	0.018	4.00
SWRH1004B-3R8NT	3.8 $\pm$ 30%	100k, 0.3V	0.028	3.50
SWRH1004B-4R7NT	4.7 $\pm$ 30%	100k, 0.3V	0.035	3.20
SWRH1004B-6R8NT	6.8 $\pm$ 30%	100k, 0.3V	0.044	2.80
SWRH1004B-100MT	10 $\pm$ 20%	1k, 0.3V	0.050	2.40
SWRH1004B-120MT	12 $\pm$ 20%	1k, 0.3V	0.054	2.25
SWRH1004B-150MT	15 $\pm$ 20%	1k, 0.3V	0.061	2.00
SWRH1004B-180MT	18 $\pm$ 20%	1k, 0.3V	0.084	1.80
SWRH1004B-220MT	22 $\pm$ 20%	1k, 0.3V	0.094	1.65
SWRH1004B-270MT	27 $\pm$ 20%	1k, 0.3V	0.110	1.45
SWRH1004B-330MT	33 $\pm$ 20%	1k, 0.3V	0.150	1.35
SWRH1004B-390MT	39 $\pm$ 20%	1k, 0.3V	0.170	1.20
SWRH1004B-470MT	47 $\pm$ 20%	1k, 0.3V	0.210	1.10
SWRH1004B-560MT	56 $\pm$ 20%	1k, 0.3V	0.230	1.00
SWRH1004B-820MT	82 $\pm$ 20%	1k, 0.3V	0.360	0.84

## SPECIFICATIONS

### SWRH1004B TYPE

Part Number	Inductance	L Test Condition	Max. DC Resistance	Max. Rated Current
Units	$\mu\text{H}$	Hz, V	$\Omega$	A
Symbol	L	-	DCR	I <sub>r</sub>
SWRH1004B-101MT	100±20%	1k, 0.3V	0.410	0.76
SWRH1004B-121MT	120±20%	1k, 0.3V	0.450	0.70
SWRH1004B-151MT	150±20%	1k, 0.3V	0.640	0.63
SWRH1004B-181MT	180±20%	1k, 0.3V	0.840	0.57
SWRH1004B-221MT	220±20%	1k, 0.3V	0.960	0.52
SWRH1004B-271MT	270±20%	1k, 0.3V	1.070	0.47
SWRH1004B-331MT	330±20%	1k, 0.3V	1.370	0.43
SWRH1004B-391MT	390±20%	1k, 0.3V	1.550	0.39
SWRH1004B-471MT	470±20%	1k, 0.3V	1.740	0.36

### SWRH1204B TYPE

Part Number	Inductance	L Test Condition	Max. DC Resistance	Max. Rated Current
Units	$\mu\text{H}$	Hz, V	$\Omega$	A
Symbol	L	-	DCR	I <sub>r</sub>
SWRH1204B-1R0NT	1.0±30%	100k, 0.3V	0.010	7.0
SWRH1204B-2R2NT	2.2±30%	100k, 0.3V	0.014	5.7
SWRH1204B-3R3NT	3.3±30%	100k, 0.3V	0.015	5.2
SWRH1204B-4R7NT	4.7±30%	100k, 0.3V	0.018	4.9
SWRH1204B-5R6NT	5.6±30%	100k, 0.3V	0.020	4.5
SWRH1204B-6R8NT	6.8±30%	100k, 0.3V	0.023	4.2
SWRH1204B-8R2NT	8.2±30%	100k, 0.3V	0.026	4.0
SWRH1204B-100MT	10±20%	1k, 0.3V	0.028	3.8
SWRH1204B-120MT	12±20%	1k, 0.3V	0.038	3.5
SWRH1204B-150MT	15±20%	1k, 0.3V	0.050	3.2
SWRH1204B-180MT	18±20%	1k, 0.3V	0.057	3.1
SWRH1204B-220MT	22±20%	1k, 0.3V	0.066	2.9
SWRH1204B-270MT	27±20%	1k, 0.3V	0.080	2.8
SWRH1204B-330MT	33±20%	1k, 0.3V	0.097	2.7
SWRH1204B-390MT	39±20%	1k, 0.3V	0.132	2.1
SWRH1204B-470MT	47±20%	1k, 0.3V	0.160	1.9
SWRH1204B-560MT	56±20%	1k, 0.3V	0.190	1.8
SWRH1204B-680MT	68±20%	1k, 0.3V	0.220	1.5
SWRH1204B-820MT	82±20%	1k, 0.3V	0.260	1.3
SWRH1204B-101MT	100±20%	1k, 0.3V	0.310	1.2
SWRH1204B-121MT	120±20%	1k, 0.3V	0.380	1.1
SWRH1204B-151MT	150±20%	1k, 0.3V	0.530	0.95
SWRH1204B-181MT	180±20%	1k, 0.3V	0.620	0.85
SWRH1204B-221MT	220±20%	1k, 0.3V	0.700	0.80
SWRH1204B-271MT	270±20%	1k, 0.3V	0.870	0.60
SWRH1204B-331MT	330±20%	1k, 0.3V	0.990	0.50

### SWRH1205B TYPE

Part Number	Inductance	L Test Condition	Max. DC Resistance	Max. Rated Current
Units	$\mu\text{H}$	Hz, V	$\Omega$	A
Symbol	L	-	DCR	I <sub>r</sub>
SWRH1205B-1R0NT	1.0±30%	100k, 0.3V	0.010	8.0
SWRH1205B-2R2NT	2.2±30%	100k, 0.3V	0.014	7.8
SWRH1205B-2R4NT	2.4±30%	100k, 0.3V	0.014	7.5
SWRH1205B-3R3NT	3.3±30%	100k, 0.3V	0.014	6.8
SWRH1205B-4R7NT	4.7±30%	100k, 0.3V	0.02	5.6
SWRH1205B-5R8NT	5.8±30%	100k, 0.3V	0.02	5.2
SWRH1205B-8R2NT	8.2±30%	100k, 0.3V	0.021	4.4

## SPECIFICATIONS

### SWRH1205B TYPE

Part Number	Inductance	L Test Condition	Max. DC Resistance	Max. Rated Current
Units	$\mu\text{H}$	Hz, V	$\Omega$	A
Symbol	L	-	DCR	I <sub>r</sub>
SWRH1205B-100MT	10±20%	1k, 0.3V	0.025	4.0
SWRH1205B-120MT	12±20%	1k, 0.3V	0.027	3.50
SWRH1205B-150MT	15±20%	1k, 0.3V	0.030	3.30
SWRH1205B-180MT	18±20%	1k, 0.3V	0.034	3.00
SWRH1205B-220MT	22±20%	1k, 0.3V	0.036	2.80
SWRH1205B-270MT	27±20%	1k, 0.3V	0.051	2.30
SWRH1205B-330MT	33±20%	1k, 0.3V	0.057	2.10
SWRH1205B-390MT	39±20%	1k, 0.3V	0.068	2.00
SWRH1205B-470MT	47±20%	1k, 0.3V	0.075	1.80
SWRH1205B-560MT	56±20%	1k, 0.3V	0.110	1.70
SWRH1205B-680MT	68±20%	1k, 0.3V	0.120	1.50
SWRH1205B-820MT	82±20%	1k, 0.3V	0.140	1.40
SWRH1205B-101MT	100±20%	1k, 0.3V	0.160	1.30
SWRH1205B-121MT	120±20%	1k, 0.3V	0.170	1.10
SWRH1205B-151MT	150±20%	1k, 0.3V	0.230	1.00
SWRH1205B-181MT	180±20%	1k, 0.3V	0.290	0.90
SWRH1205B-221MT	220±20%	1k, 0.3V	0.400	0.80
SWRH1205B-271MT	270±20%	1k, 0.3V	0.460	0.75
SWRH1205B-331MT	330±20%	1k, 0.3V	0.510	0.68
SWRH1205B-391MT	390±20%	1k, 0.3V	0.690	0.65
SWRH1205B-471MT	470±20%	1k, 0.3V	0.770	0.58
SWRH1205B-561MT	560±20%	1k, 0.3V	0.860	0.54
SWRH1205B-681MT	680±20%	1k, 0.3V	1.200	0.48
SWRH1205B-821MT	820±20%	1k, 0.3V	1.34	0.43
SWRH1205B-102MT	1000±20%	1k, 0.3V	1.80	0.40

### SWRH1207B TYPE

Part Number	Inductance	L Test Condition	Max. DC Resistance	Max. Rated Current
Units	$\mu\text{H}$	Hz, V	$\Omega$	A
Symbol	L	-	DCR	I <sub>r</sub>
SWRH1207B-1R0NT	1.0±30%	100k, 0.3V	0.009	10.00
SWRH1207B-2R2NT	2.2±30%	100k, 0.3V	0.012	8.00
SWRH1207B-2R7NT	2.7±30%	100k, 0.3V	0.013	8.00
SWRH1207B-3R3NT	3.3±30%	100k, 0.3V	0.013	8.00
SWRH1207B-3R9NT	3.9±30%	100k, 0.3V	0.013	7.50
SWRH1207B-4R7NT	4.7±30%	100k, 0.3V	0.016	6.80
SWRH1207B-6R1NT	6.1±30%	100k, 0.3V	0.018	6.60
SWRH1207B-6R8NT	6.8±30%	100k, 0.3V	0.019	6.60
SWRH1207B-7R6NT	7.6±30%	100k, 0.3V	0.020	5.90
SWRH1207B-8R2NT	8.2±30%	100k, 0.3V	0.020	5.60
SWRH1207B-100MT	10±20%	1k, 0.3V	0.021	5.40
SWRH1207B-120MT	12±20%	1k, 0.3V	0.024	4.90
SWRH1207B-150MT	15±20%	1k, 0.3V	0.027	4.50
SWRH1207B-180MT	18±20%	1k, 0.3V	0.039	3.90
SWRH1207B-220MT	22±20%	1k, 0.3V	0.043	3.60
SWRH1207B-270MT	27±20%	1k, 0.3V	0.046	3.40
SWRH1207B-330MT	33±20%	1k, 0.3V	0.065	3.00
SWRH1207B-390MT	39±20%	1k, 0.3V	0.073	2.75
SWRH1207B-470MT	47±20%	1k, 0.3V	0.100	2.50
SWRH1207B-560MT	56±20%	1k, 0.3V	0.110	2.35
SWRH1207B-680MT	68±20%	1k, 0.3V	0.140	2.10
SWRH1207B-820MT	82±20%	1k, 0.3V	0.160	1.95

## SPECIFICATIONS

### SWRH1207B TYPE

Part Number	Inductance	L Test Condition	Max. DC Resistance	Max. Rated Current
Units	$\mu\text{H}$	Hz, V	$\Omega$	A
Symbol	L	-	DCR	$I_r$
SWRH1207B-101MT	100 $\pm$ 20%	1k, 0.3V	0.220	1.70
SWRH1207B-121MT	120 $\pm$ 20%	1k, 0.3V	0.250	1.60
SWRH1207B-151MT	150 $\pm$ 20%	1k, 0.3V	0.280	1.42
SWRH1207B-181MT	180 $\pm$ 20%	1k, 0.3V	0.350	1.30
SWRH1207B-221MT	220 $\pm$ 20%	1k, 0.3V	0.390	1.16
SWRH1207B-271MT	270 $\pm$ 20%	1k, 0.3V	0.560	1.06
SWRH1207B-331MT	330 $\pm$ 20%	1k, 0.3V	0.640	0.95
SWRH1207B-391MT	390 $\pm$ 20%	1k, 0.3V	0.700	0.88
SWRH1207B-471MT	470 $\pm$ 20%	1k, 0.3V	0.980	0.79
SWRH1207B-561MT	560 $\pm$ 20%	1k, 0.3V	1.070	0.73
SWRH1207B-681MT	680 $\pm$ 20%	1k, 0.3V	1.460	0.67
SWRH1207B-821MT	820 $\pm$ 20%	1k, 0.3V	1.640	0.60
SWRH1207B-102MT	1000 $\pm$ 20%	1k, 0.3V	1.820	0.55

※1. All test data is referenced to 20°C ambient;

※2. The maximum rated current is a DC current which causes initial inductance to decrease by 35% or temperature to rise by 40°C, which is smaller (at ambient reference temperature: 20°C)