

## HA系列功率電感 HA Series SMD Power Inductors



### • 特征 FEATURES

- 超薄
- 屏蔽結構
- 適合于表面貼裝
- Low profile.
- Magnetic shielded.
- SMT type.

### • 應用 APPLICATIONS

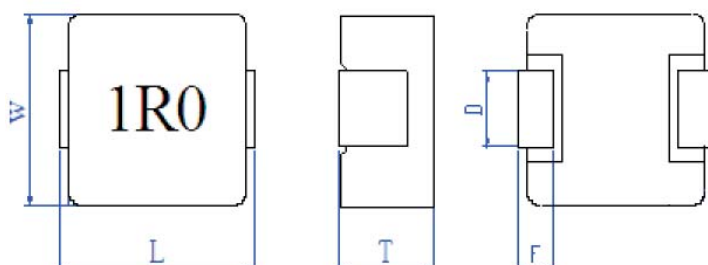
- 移動通信
- 筆記本電腦
- DC/DC轉換
- Portable communication equipment
- Notebook computer
- DC/DC converters

### • 產品規格型號的表示方法 ORDERING CODE

HA      63      -      R33      M      T  
①      ②           ③      ④      ⑤

① 產品代號 Product Code		② 規格尺寸(L×W×T) (mm) Dimensions		③ 感量(μH) Inductance		④ 誤差 Tolerance		⑤ 包裝方式 Packaging Style	
HA	HA系列 功率電感	2520	2.6×2.1×2.0	R33	0.33 μH	K	±10%	T	卷帶盤裝 Tape & Reel
		65	6.85×6.5×5.0	1R0	1.00 μH	M	±20%	B	散裝 Bulk
		125	13.2×12.6×5.0	100	10.0 μH				

### • 外形尺寸 SHAPE AND DIMENSIONS



Land Pattern

型號 Part Number	L(Max)	W(Max)	T(Max)	D	F
HA2520	2.6	2.1	2.0	0.5±0.3	1.0±0.3
HA0418	4.9	4.5	1.8	1.5±0.3	1.0±0.3
HA42	4.9	4.5	2.0	1.5±0.3	1.0±0.3
HA52	5.9	5.2	2.0	2.0±0.3	1.0±0.3

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Part No.	A(Max)	B(Max)	C(Max)	D	F
HA53	5.9	5.2	3.0	2.0±0.3	1.0±0.3
HA62	7.8	7.0	2.0	3.0±0.3	1.5±0.3
HA63	7.8	7.0	3.0	3.0±0.3	1.5±0.3
HA64	7.8	7.0	4.0	3.0±0.3	1.5±0.3
HA65	7.8	7.0	5.0	3.0±0.3	1.5±0.3
HA104	11.8	10.8	4.0	3.0±0.3	2.0±0.3
HA105	11.8	10.8	5.0	3.0±0.3	2.0±0.3
HA124	14.5	13.5	4.0	3.5±0.5	2.5±0.5
HA125	14.5	13.5	5.0	3.5±0.5	2.5±0.5
HA126	14.5	13.5	6.0	3.5±0.5	2.5±0.5
HA127	14.5	13.5	6.5	3.5±0.5	2.5±0.5
HA177	17.5	19.0	7.0	3.5±0.5	2.5±0.5

### • 電性能參數 ELECTRICAL CHARACTERISTICS

#### HA2520 Series

型號 Part Number	電感量 L (μH)	公差 Tolerance	測試頻率 Test Freq.	直流電阻 DCR(mΩ)Max	飽和電流 Isat(A)
HA2520-R47MT	0.47	±20%	100kHz	39	4.2
HA2520-1R0MT	1.0	±20%	100KHz	59	3.1
HA2520-2R2MT	2.2	±20%	100KHz	117	2.0
HA2520-3R3MT	3.3	±20%	100KHz	156	1.8
HA2520-4R7MT	4.7	±20%	100KHz	260	1.5

Isat: 飽和電流，加Isat時，電感值相對初始值下降 ≤ 30%

Isat: Saturation Current, the current when the inductance becomes 30% lower than its initial value.

#### HA0418 Series

型號 Part Number	電感量 L (μH)	公差 Tolerance	測試頻率 Test Freq.	直流電阻 DCR(mΩ)Max	飽和電流 Isat(A)
HA0418-1R0MT	1.0	±20%	100kHz	27	7
HA0418-1R5MT	1.5	±20%	100KHz	48	6
HA0418-2R2MT	2.2	±20%	100KHz	58	5
HA0418-4R7MT	4.7	±20%	100KHz	150	3

Isat: 飽和電流，加Isat時，電感值相對初始值下降 ≤ 30%

Isat: Saturation Current, the current when the inductance becomes 30% lower than its initial value.

#### HA42 Series

型號 Part Number	電感量 L (μH)	公差 Tolerance	測試頻率 Test Freq.	直流電阻 DCR(mΩ)Max	飽和電流 Isat(A)
HA42-R22MT	0.22	±20%	100kHz	8	12.0
HA42-R33MT	0.33	±20%	100KHz	10	11.0
HA42-R36MT	0.36	±20%	100KHz	12	10.0
HA42-R47MT	0.47	±20%	100KHz	14	9.5
HA42-R56MT	0.56	±20%	100KHz	18	8.0
HA42-R68MT	0.68	±20%	100KHz	21	8.0
HA42-1R0MT	1.0	±20%	100KHz	27	7.0
HA42-1R5MT	1.5	±20%	100KHz	45	6.0
HA42-2R2MT	2.2	±20%	100KHz	58	5.0
HA42-2R7MT	2.7	±20%	100KHz	58	4.0
HA42-3R3MT	3.3	±20%	100KHz	90	3.0
HA42-4R7MT	4.7	±20%	100KHz	150	2.8

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型號 Part Number	電感量 L (μH)	公差 Tolerance	測試頻率 Test Freq.	直流電阻 DCR(mΩ)Max	飽和電流 Isat(A)
HA42-6R8MT	6.8	±20%	100kHz	170	2.5
HA42-100MT	10	±20%	100KHz	200	1.8

Isat: 飽和電流, 加Isat時, 電感值相對初始值下降 ≤ 30%

Isat: Saturation Current, the current when the inductance becomes 30% lower than its initial value.

### HA52 Series

型號 Part Number	電感量 L (μH)	公差 Tolerance	測試頻率 Test Freq.	直流電阻 DCR(mΩ)Max	飽和電流 Isat(A)
HA52-R22MT	0.22	±20%	100kHz	6	16
HA52-R33MT	0.33	±20%	100KHz	9	15
HA52-R47MT	0.47	±20%	100KHz	10	12
HA52-R68MT	0.68	±20%	100KHz	16	11
HA52-1R0MT	1.0	±20%	100KHz	17	8
HA52-1R5MT	1.5	±20%	100KHz	28	7
HA52-2R2MT	2.2	±20%	100KHz	45	6
HA52-3R3MT	3.3	±20%	100KHz	80	5
HA52-4R7MT	4.7	±20%	100KHz	85	3.5
HA52-6R8MT	6.8	±20%	100KHz	100	3
HA52-100MT	10	±20%	100KHz	190	2.5

Isat: 飽和電流, 加Isat時, 電感值相對初始值下降 ≤ 30%

Isat: Saturation Current, the current when the inductance becomes 30% lower than its initial value.

### HA53 Series

型號 Part Number	電感量 L (μH)	公差 Tolerance	測試頻率 Test Freq.	直流電阻 DCR(mΩ)Max	飽和電流 Isat(A)
HA53-R47MT	0.47	±20%	100kHz	11	13
HA53-R68MT	0.68	±20%	100KHz	12	12
HA53-1R0MT	1.0	±20%	100KHz	16	11
HA53-1R5MT	1.5	±20%	100KHz	22	10
HA53-2R2MT	2.2	±20%	100KHz	35	9
HA53-3R3MT	3.3	±20%	100KHz	38	7
HA53-4R7MT	4.7	±20%	100KHz	60	5
HA53-6R8MT	6.8	±20%	100KHz	90	3.5
HA53-100MT	10	±20%	100KHz	100	3
HA53-150MT	15	±20%	100KHz	165	2
HA53-220MT	22	±20%	100KHz	230	1.5

Isat: 飽和電流, 加Isat時, 電感值相對初始值下降 ≤ 30%

Isat: Saturation Current, the current when the inductance becomes 30% lower than its initial value.

### HA62 Series

型號 Part Number	電感量 L (μH)	公差 Tolerance	測試頻率 Test Freq.	直流電阻 DCR(mΩ)Max	飽和電流 Isat(A)
HA62-R68MT	0.68	±20%	100kHz	10	16
HA62-1R0MT	1.0	±20%	100KHz	20	14
HA62-1R5MT	1.5	±20%	100KHz	30	12
HA62-2R2MT	2.2	±20%	100KHz	35	10
HA62-3R3MT	3.3	±20%	100KHz	64	7.5
HA62-4R7MT	4.7	±20%	100KHz	70	6.0
HA62-6R8MT	6.8	±20%	100KHz	100	4.0
HA62-100MT	10	±20%	100KHz	154	3.5

Isat: 飽和電流, 加Isat時, 電感值相對初始值下降 ≤ 30%

Isat: Saturation Current, the current when the inductance becomes 30% lower than its initial value.

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### HA63 Series

型號 Part Number	電感量 L (μH)	公差 Tolerance	測試頻率 Test Freq.	直流電阻 DCR(mΩ)Max	飽和電流 Isat(A)
HA63-R22MT	0.22	±20%	100kHz	3.5	40
HA63-R33MT	0.33	±20%	100KHz	3.9	30
HA63-R47MT	0.47	±20%	100KHz	4.5	25
HA63-R56MT	0.56	±20%	100KHz	5.5	24
HA63-R68MT	0.68	±20%	100KHz	5.5	23
HA63-R82MT	0.82	±20%	100KHz	8.0	20
HA63-1R0MT	1.0	±20%	100KHz	9.0	16
HA63-1R5MT	1.5	±20%	100KHz	15	14
HA63-2R2MT	2.2	±20%	100KHz	20	12
HA63-3R3MT	3.3	±20%	100KHz	30	10
HA63-4R7MT	4.7	±20%	100KHz	40	9.0
HA63-5R6MT	5.6	±20%	100KHz	60	7.0
HA63-6R8MT	6.8	±20%	100KHz	60	6.0
HA63-8R2MT	8.2	±20%	100KHz	80	6.0
HA63-100MT	10	±20%	100KHz	105	5.5
HA63-150MT	15	±20%	100KHz	140	4.0
HA63-220MT	22	±20%	100KHz	167	3.5
HA63-330MT	33	±20%	100KHz	280	2.0
HA63-470MT	47	±20%	100KHz	290	1.8

Isat: 飽和電流, 加Isat時, 電感值相對初始值下降 ≤ 30%

Isat: Saturation Current, the current when the inductance becomes 30% lower than its initial value.

### HA64 Series

型號 Part Number	電感量 L (μH)	公差 Tolerance	測試頻率 Test Freq.	直流電阻 DCR(mΩ)Max	飽和電流 Isat(A)
HA64-R56MT	0.56	±20%	100kHz	5.5	22
HA64-R68MT	0.68	±20%	100KHz	5.5	20
HA64-1R0MT	1.0	±20%	100KHz	8.5	19
HA64-1R5MT	1.5	±20%	100KHz	15	16
HA64-2R2MT	2.2	±20%	100KHz	18	14
HA64-3R3MT	3.3	±20%	100KHz	20	13
HA64-4R7MT	4.7	±20%	100KHz	28	8.0

Isat: 飽和電流, 加Isat時, 電感值相對初始值下降 ≤ 30%

Isat: Saturation Current, the current when the inductance becomes 30% lower than its initial value.

### HA65 Series

型號 Part Number	電感量 L (μH)	公差 Tolerance	測試頻率 Test Freq.	直流電阻 DCR(mΩ)Max	飽和電流 Isat(A)
HA65-R22MT	0.22	±20%	100kHz	3.5	45
HA65-R47MT	0.47	±20%	100KHz	4.5	21
HA65-R56MT	0.56	±20%	100KHz	6.0	25
HA65-R68MT	0.68	±20%	100KHz	6.5	19
HA65-R82MT	0.82	±20%	100KHz	7.5	18
HA65-1R0MT	1.0	±20%	100KHz	8.5	17
HA65-1R5MT	1.5	±20%	100KHz	9.0	12
HA65-2R2MT	2.2	±20%	100KHz	12.5	12
HA65-3R3MT	3.3	±20%	100KHz	20	9.0
HA65-3R8MT	3.8	±20%	100KHz	25	8.0
HA65-4R7MT	4.7	±20%	100KHz	15	7.0
HA65-4R9MT	4.9	±20%	100KHz	16	6.5
HA65-5R6MT	5.6	±20%	100KHz	30	6.0
HA65-6R8MT	6.8	±20%	100KHz	38	6.0
HA65-8R2MT	8.2	±20%	100KHz	40	6.0
HA65-100MT	10	±20%	100KHz	60	5.3

## HA系列功率電感 HA Series SMD Power Inductors

型號 Part Number	電感量 L (μH)	公差 Tolerance	測試頻率 Test Freq.	直流電阻 DCR(mΩ)Max	飽和電流 Isat(A)
HA65-150MT	15	±20%	100KHz	85	5.0
HA65-220MT	22	±20%	100KHz	85	4.0
HA65-330MT	33	±20%	100KHz	237	3.0
HA65-470MT	47	±20%	100KHz	280	2.0
HA65-680MT	68	±20%	100KHz	310	1.8

Isat: 飽和電流, 加Isat時, 電感值相對初始值下降 ≤ 30%

Isat: Saturation Current, the current when the inductance becomes 30% lower than its initial value.

### HA104 Series

型號 Part Number	電感量 L (μH)	公差 Tolerance	測試頻率 Test Freq.	直流電阻 DCR(mΩ)Max	飽和電流 Isat(A)
HA104-R22MT	0.22	±20%	100KHz	1.1	60
HA104-R33MT	0.33	±20%	100KHz	1.4	50
HA104-R36MT	0.36	±20%	100KHz	1.4	50
HA104-R47MT	0.47	±20%	100KHz	1.8	38
HA104-R56MT	0.56	±20%	100KHz	1.8	33
HA104-R68MT	0.68	±20%	100KHz	3.0	32
HA104-R90MT	0.9	±20%	100KHz	3.0	30
HA104-1R0MT	1.0	±20%	100KHz	4.1	28
HA104-1R5MT	1.5	±20%	100KHz	5.8	27
HA104-2R2MT	2.2	±20%	100KHz	9.0	25
HA104-3R3MT	3.3	±20%	100KHz	13.5	16
HA104-3R9MT	3.9	±20%	100KHz	16	16
HA104-4R7MT	4.7	±20%	100KHz	16.5	14
HA104-5R6MT	5.6	±20%	100KHz	25	13
HA104-6R8MT	6.8	±20%	100KHz	28	12
HA104-8R2MT	8.2	±20%	100KHz	30	9.0
HA104-100MT	10	±20%	100KHz	36.5	9.0
HA104-120MT	12	±20%	100KHz	48	8.0
HA104-150MT	15	±20%	100KHz	48	7.0
HA104-220MT	22	±20%	100KHz	60	6.0
HA104-330MT	33	±20%	100KHz	145	4.5
HA104-470MT	47	±20%	100KHz	145	3.0
HA104-680MT	68	±20%	100KHz	220	3.5
HA104-101MT	100	±20%	100KHz	270	2.0

Isat: 飽和電流, 加Isat時, 電感值相對初始值下降 ≤ 30%

Isat: Saturation Current, the current when the inductance becomes 30% lower than its initial value.

### HA105 Series

型號 Part Number	電感量 L (μH)	公差 Tolerance	測試頻率 Test Freq.	直流電阻 DCR(mΩ)Max	飽和電流 Isat(A)
HA105-R82MT	0.82	±20%	100kHz	2.5	32
HA105-1R0MT	1.0	±20%	100KHz	4.0	30
HA105-1R8MT	1.8	±20%	100KHz	6.0	27.5
HA105-2R2MT	2.2	±20%	100KHz	8.0	27
HA105-3R3MT	3.3	±20%	100KHz	11	19
HA105-4R7MT	4.7	±20%	100KHz	17	14
HA105-6R8MT	6.8	±20%	100KHz	22	10
HA105-100MT	10	±20%	100KHz	38	10
HA105-150MT	15	±20%	100KHz	45	10
HA105-220MT	22	±20%	100KHz	60	7.0
HA105-330MT	33	±20%	100KHz	145	6.0

Isat: 飽和電流, 加Isat時, 電感值相對初始值下降 ≤ 30%

Isat: Saturation Current, the current when the inductance becomes 30% lower than its initial value.

## HA系列功率電感 HA Series SMD Power Inductors

### HA124 Series

型號 Part Number	電感量 L (μH)	公差 Tolerance	測試頻率 Test Freq.	直流電阻 DCR(mΩ)Max	飽和電流 Isat(A)
HA124-R47MT	0.47	±20%	100KHz	2.0	55
HA124-R60MT	0.60	±20%	100KHz	3.0	40
HA124-1R0MT	1.0	±20%	100KHz	3.5	38
HA124-1R5MT	1.5	±20%	100KHz	4.5	30
HA124-1R8MT	1.8	±20%	100KHz	8.3	26
HA124-2R2MT	2.2	±20%	100KHz	9.5	22
HA124-3R3MT	3.3	±20%	100KHz	10	20
HA124-4R7MT	4.7	±20%	100KHz	14	15
HA124-5R6MT	5.6	±20%	100KHz	17	14
HA124-6R8MT	6.8	±20%	100KHz	24	12
HA124-8R2MT	8.2	±20%	100KHz	28	12
HA124-100MT	10	±20%	100KHz	35	10
HA124-150MT	15	±20%	100KHz	60	9.0
HA124-220MT	22	±20%	100KHz	80	7.0

Isat: 飽和電流，加Isat時，電感值相對初始值下降 ≤ 30%

Isat: Saturation Current, the current when the inductance becomes 30% lower than its initial value.

### HA125 Series

型號 Part Number	電感量 L (μH)	公差 Tolerance	測試頻率 Test Freq.	直流電阻 DCR(mΩ)Max	飽和電流 Isat(A)
HA125-R33MT	0.33	±20%	100KHz	1.0	60
HA125-R36MT	0.36	±20%	100KHz	1.2	50
HA125-R47MT	0.47	±20%	100KHz	1.3	48
HA125-R56MT	0.56	±20%	100KHz	1.5	46
HA125-R68MT	0.68	±20%	100KHz	1.5	40
HA125-R82MT	0.82	±20%	100KHz	2.5	39
HA125-1R0MT	1.0	±20%	100KHz	3.5	35
HA125-1R5MT	1.5	±20%	100KHz	4.1	33
HA125-1R8MT	1.8	±20%	100KHz	4.3	30
HA125-2R2MT	2.2	±20%	100KHz	4.5	25
HA125-3R3MT	3.3	±20%	100KHz	13	23
HA125-4R7MT	4.7	±20%	100KHz	15	21
HA125-5R6MT	5.6	±20%	100KHz	17	20
HA125-6R8MT	6.8	±20%	100KHz	19	18
HA125-8R2MT	8.2	±20%	100KHz	22.5	17
HA125-100MT	10	±20%	100KHz	25.5	13
HA125-150MT	15	±20%	100KHz	60	12
HA125-220MT	22	±20%	100KHz	75	8.0
HA125-330MT	33	±20%	100KHz	82	6.0
HA125-470MT	47	±20%	100KHz	90	3.5
HA125-560MT	56	±20%	100KHz	180	3.5
HA125-680MT	68	±20%	100KHz	210	3.5

Isat: 飽和電流，加Isat時，電感值相對初始值下降 ≤ 30%

Isat: Saturation Current, the current when the inductance becomes 30% lower than its initial value.

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### HA126 Series

型號 Part Number	電感量 L (μH)	公差 Tolerance	測試頻率 Test Freq.	直流電阻 DCR(mΩ)Max	飽和電流 Isat(A)
HA126-R33MT	0.33	±20%	100KHz	2.3	55
HA126-R68MT	0.68	±20%	100KHz	2.8	45
HA126-1R0MT	1.0	±20%	100KHz	3.5	40
HA126-1R5MT	1.5	±20%	100KHz	4.0	35
HA126-2R2MT	2.2	±20%	100KHz	4.5	32
HA126-3R3MT	3.3	±20%	100KHz	8.2	30
HA126-4R7MT	4.7	±20%	100KHz	13.5	25
HA126-5R6MT	5.6	±20%	100KHz	21	22
HA126-6R8MT	6.8	±20%	100KHz	23	20
HA126-100MT	10	±20%	100KHz	30	12.5
HA126-220MT	22	±20%	100KHz	45	7.5

Isat: 飽和電流，加Isat時，電感值相對初始值下降 ≤ 30%

Isat: Saturation Current, the current when the inductance becomes 30% lower than its initial value.

### HA127 Series

型號 Part Number	電感量 L (μH)	公差 Tolerance	測試頻率 Test Freq.	直流電阻 DCR(mΩ)Max	飽和電流 Isat(A)
HA127-R22MT	0.22	±20%	100KHz	0.81	80
HA127-R56MT	0.56	±20%	100KHz	1.7	60
HA127-R68MT	0.68	±20%	100KHz	1.8	54
HA127-R82MT	0.82	±20%	100KHz	2.0	50
HA127-1R0MT	1.0	±20%	100KHz	2.5	49
HA127-1R5MT	1.5	±20%	100KHz	3.5	45
HA127-2R2MT	2.2	±20%	100KHz	4.5	40
HA127-3R3MT	3.3	±20%	100KHz	8.2	28
HA127-4R7MT	4.7	±20%	100KHz	14	22.5
HA127-5R6MT	5.6	±20%	100KHz	15	20
HA127-6R8MT	6.8	±20%	100KHz	13	18
HA127-8R2MT	8.2	±20%	100KHz	25	16
HA127-100MT	10	±20%	100KHz	25	15.5
HA127-150MT	15	±20%	100KHz	38	9.0
HA127-220MT	22	±20%	100KHz	48	7.5
HA127-330MT	33	±20%	100KHz	66	6.5
HA127-470MT	47	±20%	100KHz	90	5.0
HA127-560MT	56	±20%	100KHz	110	4.0
HA127-680MT	68	±20%	100KHz	123	3.5
HA127-121MT	120	±20%	100KHz	260	3.0
HA127-151MT	150	±20%	100KHz	298	2.5

Isat: 飽和電流，加Isat時，電感值相對初始值下降 ≤ 30%

Isat: Saturation Current, the current when the inductance becomes 30% lower than its initial value.

# HA系列功率電感

## HA Series SMD Power Inductors

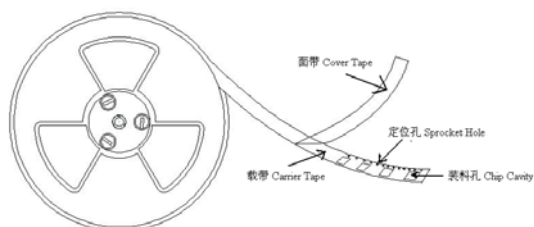
### HA177 Series

型號 Part Number	電感量 L (μH)	公差 Tolerance	測試頻率 Test Freq.	直流電阻 DCR(mΩ)Max	飽和電流 Isat(A)
HA177-R22MT	0.22	± 20%	100KHz	0.70	100
HA177-R33MT	0.33	± 20%	100KHz	0.8	90
HA177-R47MT	0.47	± 20%	100KHz	1.0	80
HA177-R56MT	0.56	± 20%	100KHz	1.15	70
HA177-R82MT	0.82	± 20%	100KHz	1.3	60
HA177-1R0MT	1.0	± 20%	100KHz	1.7	50
HA177-1R5MT	1.5	± 20%	100KHz	2.15	45
HA177-2R2MT	2.2	± 20%	100KHz	2.6	34
HA177-3R3MT	3.3	± 20%	100KHz	3.5	24
HA177-4R7MT	4.7	± 20%	100KHz	5.0	21
HA177-6R8MT	6.8	± 20%	100KHz	7.0	18
HA177-8R2MT	8.2	± 20%	100KHz	9.0	18
HA177-100MT	10	± 20%	100KHz	10	17
HA177-150MT	15	± 20%	100KHz	15	12
HA177-220MT	22	± 20%	100KHz	25	9.5
HA177-330MT	33	± 20%	100KHz	35	9.0
HA177-470MT	47	± 20%	100KHz	40	7.5
HA177-680MT	68	± 20%	100KHz	80	5.0
HA177-820MT	82	± 20%	100KHz	105	4.5
HA177-101MT	100	± 20%	100KHz	120	4.0

Isat: 飽和電流，加Isat時，電感值相對初始值下降 ≤ 30%

Isat: Saturation Current, the current when the inductance becomes 30% lower than its initial value.

### • 包裝方式&數量PACKAGING STYLE&QUANTITY



型號 Part Number	卷盤REEL (PCS/REEL)	紙盒BOX (PCS/BOX)	紙箱Carton ( PCS/Carton)
HA2520	2000	6000	18000
HA0418	3000	9000	27000
HA42	3000	9000	27000
HA52	2000	6000	18000
HA53	2000	6000	18000
HA62	2000	6000	18000
HA63	1500	4500	13500
HA64	1000	3000	9000
HA65	1000	3000	9000
HA104	750	2250	6750
HA105	750	2250	6750
HA124	500	1500	4500
HA125	500	1500	4500
HA126	400	1200	3600
HA127	400	1200	3600
HA177	300	900	2700