

# MS系列功率電感 MS SERIES SMD POWER INDUCTORS

## MS系列功率電感 MS SERIES SMD POWER INDUCTORS



### • 特征 FEATURES

- 大電流; • High saturation current
- 屏蔽結構; • Magnetic shielded
- 適合于表面貼裝, 適合于回流焊。 • SMT type, suitable for reflow soldering.

### • 應用APPLICATION:

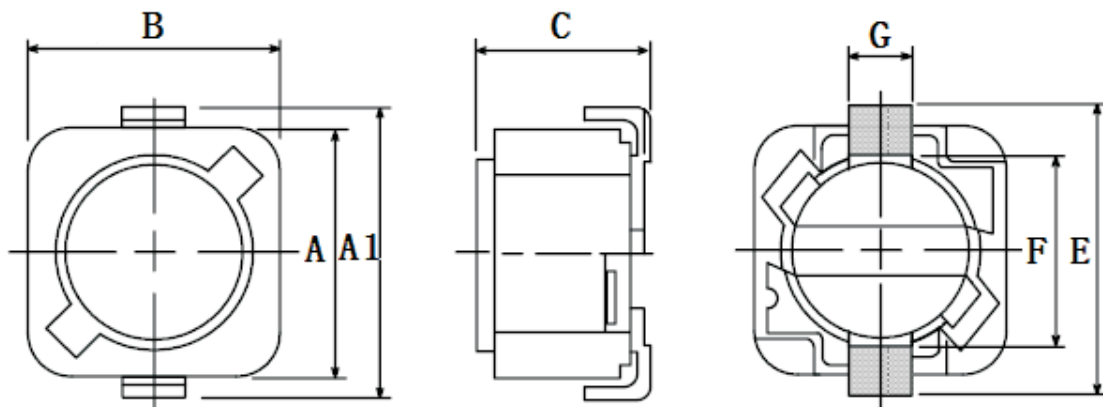
- 辦公自動化設備, 筆記本電腦; • OA equipment, Notebook Computer
- LCD電視; • LCD televisions
- DC/DC轉換。 • DC/DC converters etc.

### • 產品規格型號的表示方法 ORDERING CODE

MS      127      —      101      M      T  
①      ②           ③      ④      ⑤

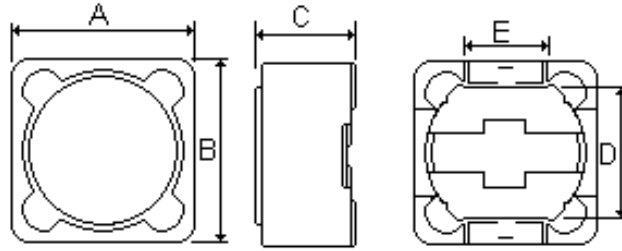
| ① 產品代號<br>Product Code |              | ② 規格尺寸(L×W×T)<br>Dimensions<br>(L×W×T) (mm) |               | ③ 電感量(μH)<br>Inductance |      | ④ 誤差<br>Tolerance |      | ⑤ 包裝方式<br>Packaging Style |                   |
|------------------------|--------------|---|---------------|-------------------------|------|-------------------|------|---------------------------|-------------------|
| MS                     | MS系列<br>功率電感 | 73  | 7.3×7.3×3.4   | 150                     | 15   | M                 | ±20% | T                         | 卷帶盤裝<br>Tape&Reel |
|                        |              | 74  | 7.3×7.3×4.2   | 101                     | 100  | N                 | ±30% | B                         | 散裝Bulk            |
|                        |              | 124   | 12.2×12.2×4.5 | 102                     | 1000 |                   |      |                           |                   |
|                        |              | 127   | 12.2×12.2×7.5 |                         |      |                   |      |                           |                   |

### • 外形尺寸 SHAPE AND DIMENSIONS



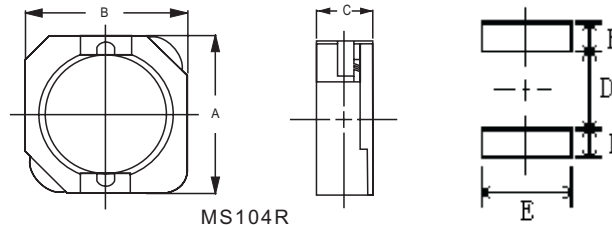
Unit: mm

| 型號Part | A       | A1      | B       | C       | E       | F       | F       |
|--------|---------|---------|---------|---------|---------|---------|---------|
| MS62   | 5.9±0.3 | 6.6±0.3 | 6.2±0.3 | 2.7±0.3 | 6.6±0.3 | 4.6±0.2 | 1.5±0.2 |



Unit: mm

| 型號Part | A        | B        | C       | D   | E   |
|--------|----------|----------|---------|-----|-----|
| MS73   | 7.3±0.3  | 7.3±0.3  | 3.4±0.3 | 5.0 | 2.0 |
| MS74   | 7.3±0.3  | 7.3±0.3  | 4.2±0.3 | 5.0 | 2.0 |
| MS124  | 12.2±0.4 | 12.2±0.4 | 4.5±0.3 | 7.6 | 5.0 |
| MS125  | 12.2±0.4 | 12.2±0.4 | 5.7±0.3 | 7.6 | 5.0 |
| Ms127  | 12.2±0.4 | 12.2±0.4 | 7.5±0.3 | 7.6 | 5.0 |



MS104R

Unit: mm

| 型號Part | A        | B        | C      | D   | E   | F   |
|--------|----------|----------|--------|-----|-----|-----|
| MS104R | 10.2±0.3 | 10.0±0.3 | 4.0MAX | 7.8 | 3.0 | 1.2 |

## ■ 電性能參數 ELECTRICAL CHARACTERISTICS

### MS62 Series

| 型號<br>Part Number | 電感量<br>L(μH) | 公差<br>Tolerance | 測試頻率<br>Test Freq. | 直流電阻<br>DCR(Ω)Max | Isat(A) |
|-------------------|--------------|-----------------|--------------------|-------------------|---------|
| MS62-6R8NT        | 6.8          | ± 30%           | 1kHz               | 0.120             | 1.70    |
| MS62-100MT        | 10           | ± 20%           | 1kHz               | 0.170             | 1.60    |
| MS62-150MT        | 15           | ± 20%           | 1kHz               | 0.260             | 1.30    |
| MS62-220MT        | 22           | ± 20%           | 1kHz               | 0.380             | 1.00    |
| MS62-330MT        | 33           | ± 20%           | 1kHz               | 0.480             | 0.64    |
| MS62-470MT        | 47           | ± 20%           | 1kHz               | 0.770             | 0.53    |
| MS62-101MT        | 100          | ± 20%           | 1kHz               | 1.500             | 0.45    |

Isat: 飽和電流，加Isat時，電感值相對初始值下降 ≤ 20%

Isat: Saturation Current, the current when the inductance becomes 20% lower than its initial value.

## MS系列功率電感

## MS SERIES SMD POWER INDUCTORS

## MS73 Series

| 型號<br>Part Number | 電感量<br>L(μH) | 公差<br>Tolerance | 測試頻率<br>Test Freq. | 直流電阻<br>DCR(Ω)Max | Isat(A) |
|-------------------|--------------|-----------------|--------------------|-------------------|---------|
| MS73-1R0NT        | 1.0          | ±30%            | 1kHz               | 0.025             | 3.60    |
| MS73-2R2NT        | 2.2          | ±30%            | 1kHz               | 0.035             | 2.50    |
| MS73-100MT        | 10           | ±20%            | 1kHz               | 0.072             | 1.68    |
| MS73-120MT        | 12           | ±20%            | 1kHz               | 0.098             | 1.52    |
| MS73-150MT        | 15           | ±20%            | 1kHz               | 0.130             | 1.33    |
| MS73-180MT        | 18           | ±20%            | 1kHz               | 0.140             | 1.20    |
| MS73-220MT        | 22           | ±20%            | 1kHz               | 0.190             | 1.07    |
| MS73-270MT        | 27           | ±20%            | 1kHz               | 0.210             | 0.96    |
| MS73-330MT        | 33           | ±20%            | 1kHz               | 0.240             | 0.91    |
| MS73-390MT        | 39           | ±20%            | 1kHz               | 0.320             | 0.77    |
| MS73-470MT        | 47           | ±20%            | 1kHz               | 0.360             | 0.76    |
| MS73-560MT        | 56           | ±20%            | 1kHz               | 0.470             | 0.68    |
| MS73-680MT        | 68           | ±20%            | 1kHz               | 0.520             | 0.61    |
| MS73-820MT        | 82           | ±20%            | 1kHz               | 0.690             | 0.57    |
| MS73-101MT        | 100          | ±20%            | 1kHz               | 0.790             | 0.50    |
| MS73-121MT        | 120          | ±20%            | 1kHz               | 0.890             | 0.49    |
| MS73-151MT        | 150          | ±20%            | 1kHz               | 1.270             | 0.43    |
| MS73-181MT        | 180          | ±20%            | 1kHz               | 1.450             | 0.39    |
| MS73-221MT        | 220          | ±20%            | 1kHz               | 1.650             | 0.35    |
| MS73-271MT        | 270          | ±20%            | 1kHz               | 2.310             | 0.32    |
| MS73-331MT        | 330          | ±20%            | 1kHz               | 2.620             | 0.28    |
| MS73-391MT        | 390          | ±20%            | 1kHz               | 2.940             | 0.26    |
| MS73-471MT        | 470          | ±20%            | 1kHz               | 4.180             | 0.24    |
| MS73-561MT        | 560          | ±20%            | 1kHz               | 4.670             | 0.22    |
| MS73-681MT        | 680          | ±20%            | 1kHz               | 5.730             | 0.19    |
| MS73-821MT        | 820          | ±20%            | 1kHz               | 6.540             | 0.18    |
| MS73-102MT        | 1000         | ±20%            | 1kHz               | 9.440             | 0.16    |

## Ms74 Series

| 型號<br>Part Number | 電感量<br>L(μH) | 公差<br>Tolerance | 測試頻率<br>Test Freq. | 直流電阻<br>DCR(Ω)Max | Isat(A) |
|-------------------|--------------|-----------------|--------------------|-------------------|---------|
| MS74-1R0NT        | 1.0          | ±30%            | 1kHz               | 0.022             | 6.00    |
| MS74-2R2NT        | 2.2          | ±30%            | 1kHz               | 0.030             | 3.00    |
| MS74-100MT        | 10           | ±20%            | 1kHz               | 0.049             | 1.84    |
| MS74-120MT        | 12           | ±20%            | 1kHz               | 0.058             | 1.71    |
| MS74-150MT        | 15           | ±20%            | 1kHz               | 0.081             | 1.47    |
| MS74-180MT        | 18           | ±20%            | 1kHz               | 0.091             | 1.31    |
| MS74-220MT        | 22           | ±20%            | 1kHz               | 0.110             | 1.23    |
| MS74-330MT        | 33           | ±20%            | 1kHz               | 0.170             | 0.96    |
| MS74-390MT        | 39           | ±20%            | 1kHz               | 0.230             | 0.91    |
| MS74-470MT        | 47           | ±20%            | 1kHz               | 0.260             | 0.88    |
| MS74-560MT        | 56           | ±20%            | 1kHz               | 0.350             | 0.75    |
| MS74-680MT        | 68           | ±20%            | 1kHz               | 0.380             | 0.69    |
| MS74-820MT        | 82           | ±20%            | 1kHz               | 0.430             | 0.61    |
| MS74-101MT        | 100          | ±20%            | 1kHz               | 0.610             | 0.60    |
| MS74-121MT        | 120          | ±20%            | 1kHz               | 0.660             | 0.52    |
| MS74-151MT        | 150          | ±20%            | 1kHz               | 0.880             | 0.46    |
| MS74-181MT        | 180          | ±20%            | 1kHz               | 0.980             | 0.42    |
| MS74-221MT        | 220          | ±20%            | 1kHz               | 1.170             | 0.36    |
| MS74-271MT        | 270          | ±20%            | 1kHz               | 1.640             | 0.34    |
| MS74-331MT        | 330          | ±20%            | 1kHz               | 1.860             | 0.32    |
| MS74-391MT        | 390          | ±20%            | 1kHz               | 2.850             | 0.29    |
| MS74-471MT        | 470          | ±20%            | 1kHz               | 3.010             | 0.26    |
| MS74-561MT        | 560          | ±20%            | 1kHz               | 3.620             | 0.23    |
| MS74-681MT        | 680          | ±20%            | 1kHz               | 4.630             | 0.22    |
| MS74-821MT        | 820          | ±20%            | 1kHz               | 5.200             | 0.20    |
| MS74-102MT        | 1000         | ±20%            | 1kHz               | 6.000             | 0.18    |

Isat: 飽和電流，加Isat時，電感值相對初始值下降 ≤ 20%

Isat: Saturation Current, the current when the inductance becomes 20% lower than its initial value.

**MS104R Series**

| 型號<br>Part Number | 電感量<br>L(μH) | 公差<br>Tolerance | 測試頻率<br>Test Freq. | 直流電阻<br>DCR(Ω)Max | Isat(A) |
|-------------------|--------------|-----------------|--------------------|-------------------|---------|
| MS104R-1R5NT      | 1.5          | ±30%            | 100kHz             | 0.017             | 10.0    |
| MS104R-2R5NT      | 2.5          | ±30%            | 100kHz             | 0.021             | 7.50    |
| MS104R-3R3NT      | 3.3          | ±30%            | 100kHz             | 0.035             | 6.00    |
| MS104R-3R8NT      | 3.8          | ±30%            | 100kHz             | 0.035             | 6.00    |
| MS104R-4R7NT      | 4.7          | ±30%            | 100kHz             | 0.028             | 5.50    |
| MS104R-5R2NT      | 5.2          | ±30%            | 100kHz             | 0.028             | 5.50    |
| MS104R-7R0NT      | 7.0          | ±30%            | 100kHz             | 0.038             | 4.80    |
| MS104R-100MT      | 10           | ±20%            | 100kHz             | 0.043             | 4.40    |
| MS104R-120MT      | 12           | ±20%            | 100kHz             | 0.060             | 4.00    |
| MS104R-150MT      | 15           | ±20%            | 100kHz             | 0.068             | 3.60    |
| MS104R-180MT      | 18           | ±20%            | 100kHz             | 0.070             | 3.30    |
| MS104R-220MT      | 22           | ±20%            | 100kHz             | 0.090             | 2.90    |
| MS104R-270MT      | 27           | ±20%            | 100kHz             | 0.117             | 2.60    |
| MS104R-330MT      | 33           | ±20%            | 100kHz             | 0.120             | 2.40    |
| MS104R-470MT      | 47           | ±20%            | 100kHz             | 0.190             | 2.10    |
| MS104R-680MT      | 68           | ±20%            | 100kHz             | 0.350             | 1.50    |
| MS104R-820MT      | 82           | ±20%            | 100kHz             | 0.385             | 1.45    |
| MS104R-101MT      | 100          | ±20%            | 100kHz             | 0.430             | 1.35    |
| MS104R-151MT      | 150          | ±20%            | 100kHz             | 0.506             | 1.15    |
| MS104R-181MT      | 180          | ±20%            | 100kHz             | 0.627             | 1.00    |
| MS104R-221MT      | 220          | ±20%            | 100kHz             | 0.756             | 0.92    |
| MS104R-271MT      | 270          | ±20%            | 100kHz             | 0.950             | 0.75    |
| MS104R-331MT      | 330          | ±20%            | 100kHz             | 1.090             | 0.70    |
| MS104R-471MT      | 470          | ±20%            | 100kHz             | 1.900             | 0.60    |

**MS124 Series**

| 型號<br>Part Number | 電感量<br>L(μH) | 公差<br>Tolerance | 測試頻率<br>Test Freq. | 直流電阻<br>DCR(Ω)Max | Isat(A) |
|-------------------|--------------|-----------------|--------------------|-------------------|---------|
| MS124-1R0NT       | 1.0          | ±30%            | 100kHz             | 0.008             | 12.00   |
| MS124-1R6NT       | 1.6          | ±30%            | 100kHz             | 0.009             | 8.00    |
| MS124-3R9NT       | 3.9          | ±30%            | 100kHz             | 0.018             | 6.50    |
| MS124-4R7NT       | 4.7          | ±30%            | 100kHz             | 0.022             | 5.70    |
| MS124-6R2NT       | 6.2          | ±30%            | 100kHz             | 0.028             | 4.90    |
| MS124-6R8NT       | 6.8          | ±30%            | 100kHz             | 0.028             | 4.90    |
| MS124-100MT       | 10           | ±20%            | 100kHz             | 0.035             | 4.50    |
| MS124-120MT       | 12           | ±20%            | 100kHz             | 0.038             | 4.00    |
| MS124-150MT       | 15           | ±20%            | 100kHz             | 0.050             | 3.20    |
| MS124-180MT       | 18           | ±20%            | 100kHz             | 0.057             | 3.10    |
| MS124-220MT       | 22           | ±20%            | 100kHz             | 0.066             | 2.90    |
| MS124-270MT       | 27           | ±20%            | 100kHz             | 0.080             | 2.80    |
| MS124-330MT       | 33           | ±20%            | 100kHz             | 0.097             | 2.70    |
| MS124-390MT       | 39           | ±20%            | 100kHz             | 0.132             | 2.10    |
| MS124-470MT       | 47           | ±20%            | 100kHz             | 0.150             | 1.90    |
| MS124-560MT       | 56           | ±20%            | 100kHz             | 0.190             | 1.80    |
| MS124-680MT       | 68           | ±20%            | 100kHz             | 0.220             | 1.50    |
| MS124-820MT       | 82           | ±20%            | 100kHz             | 0.260             | 1.30    |
| MS124-101MT       | 100          | ±20%            | 100kHz             | 0.308             | 1.20    |
| MS124-121MT       | 120          | ±20%            | 100kHz             | 0.380             | 1.10    |
| MS124-151MT       | 150          | ±20%            | 100kHz             | 0.530             | 0.95    |
| MS124-181MT       | 180          | ±20%            | 100kHz             | 0.620             | 0.85    |
| MS124-221MT       | 220          | ±20%            | 100kHz             | 0.700             | 0.80    |
| MS124-271MT       | 270          | ±20%            | 100kHz             | 0.876             | 0.60    |
| MS124-331MT       | 330          | ±20%            | 100kHz             | 0.990             | 0.50    |
| MS124-471MT       | 470          | ±20%            | 100kHz             | 1.300             | 0.40    |
| MS124-152MT       | 1500         | ±20%            | 100kHz             | 4.000             | 0.29    |
| MS124-333MT       | 33000        | ±20%            | 100kHz             | 95.000            | 0.07    |

Isat: 飽和電流，加Isat時，電感值相對初始值下降 ≤20%

Isat: Saturation Current, the current when the inductance becomes 20% lower than its initial value.

## MS系列功率電感

## MS SERIES SMD POWER INDUCTORS

## MS125 Series

| 型號<br>Part Number | 電感量<br>L(μH) | 公差<br>Tolerance | 測試頻率<br>Test Freq. | 直流電阻<br>DCR(Ω)Max | Isat(A) |
|-------------------|--------------|-----------------|--------------------|-------------------|---------|
| MS125-1R3NT       | 1.3          | ±30%            | 100kHz             | 0.012             | 8.00    |
| MS125-2R1NT       | 2.1          | ±30%            | 100kHz             | 0.014             | 7.00    |
| MS125-3R1NT       | 3.1          | ±30%            | 100kHz             | 0.017             | 6.00    |
| MS125-4R4NT       | 4.4          | ±30%            | 100kHz             | 0.020             | 5.00    |
| MS125-5R8NT       | 5.8          | ±30%            | 100kHz             | 0.021             | 4.40    |
| MS125-7R5NT       | 7.5          | ±30%            | 100kHz             | 0.024             | 4.20    |
| MS125-100MT       | 10           | ±20%            | 1kHz               | 0.025             | 4.00    |
| MS125-120MT       | 12           | ±20%            | 1kHz               | 0.027             | 3.50    |
| MS125-150MT       | 15           | ±20%            | 1kHz               | 0.030             | 3.30    |
| MS125-180MT       | 18           | ±20%            | 1kHz               | 0.034             | 3.00    |
| MS125-220MT       | 22           | ±20%            | 1kHz               | 0.042             | 2.80    |
| MS125-270MT       | 27           | ±20%            | 1kHz               | 0.051             | 2.30    |
| MS125-330MT       | 33           | ±20%            | 1kHz               | 0.065             | 2.10    |
| MS125-390MT       | 39           | ±20%            | 1kHz               | 0.068             | 2.00    |
| MS125-470MT       | 47           | ±20%            | 1kHz               | 0.075             | 1.80    |
| MS125-560MT       | 56           | ±20%            | 1kHz               | 0.110             | 1.70    |
| MS125-680MT       | 68           | ±20%            | 1kHz               | 0.120             | 1.50    |
| MS125-820MT       | 82           | ±20%            | 1kHz               | 0.140             | 1.40    |
| MS125-101MT       | 100          | ±20%            | 1kHz               | 0.198             | 1.30    |
| MS125-121MT       | 120          | ±20%            | 1kHz               | 0.220             | 1.10    |
| MS125-151MT       | 150          | ±20%            | 1kHz               | 0.230             | 1.00    |
| MS125-181MT       | 180          | ±20%            | 1kHz               | 0.290             | 0.90    |
| MS125-221MT       | 220          | ±20%            | 1kHz               | 0.400             | 0.80    |
| MS125-271MT       | 270          | ±20%            | 1kHz               | 0.460             | 0.75    |
| MS125-331MT       | 330          | ±20%            | 1kHz               | 0.510             | 0.68    |
| MS125-391MT       | 390          | ±20%            | 1kHz               | 0.690             | 0.65    |
| MS125-471MT       | 470          | ±20%            | 1kHz               | 0.770             | 0.58    |
| MS125-561MT       | 560          | ±20%            | 1kHz               | 0.860             | 0.54    |
| MS125-681MT       | 680          | ±20%            | 1kHz               | 1.200             | 0.48    |
| MS125-821MT       | 820          | ±20%            | 1kHz               | 1.340             | 0.43    |
| MS125-102MT       | 1000         | ±20%            | 1kHz               | 1.900             | 0.40    |
| MS125-472MT       | 4700         | ±20%            | 1kHz               | 8.280             | 0.30    |
| MS125-802MT       | 8000         | ±20%            | 1kHz               | 15.000            | 0.22    |
| MS125-103MT       | 10000        | ±20%            | 1kHz               | 20.000            | 0.12    |

Isat: 飽和電流，加Isat時，電感值相對初始值下降 ≤20%

Isat: Saturation Current, the current when the inductance becomes 20% lower than its initial value.

### MS127 Series

| 型號<br>Part Number | 電感量<br>L(μH) | 公差<br>Tolerance | 測試頻率<br>Test Freq. | 直流電阻<br>DCR(Ω)Max | Isat(A) |
|-------------------|--------------|-----------------|--------------------|-------------------|---------|
| MS127-1R0NT       | 1.0          | ± 30%           | 100kHz             | 0.0070            | 9.80    |
| MS127-2R2NT       | 2.2          | ± 30%           | 100kHz             | 0.0115            | 7.50    |
| MS127-3R3NT       | 3.3          | ± 30%           | 100kHz             | 0.0135            | 7.50    |
| MS127-4R7NT       | 4.7          | ± 30%           | 100kHz             | 0.0158            | 6.80    |
| MS127-100MT       | 10           | ± 20%           | 1kHz               | 0.0216            | 5.40    |
| MS127-120MT       | 12           | ± 20%           | 1kHz               | 0.0243            | 4.90    |
| MS127-150MT       | 15           | ± 20%           | 1kHz               | 0.0270            | 4.50    |
| MS127-180MT       | 18           | ± 20%           | 1kHz               | 0.0392            | 3.90    |
| MS127-220MT       | 22           | ± 20%           | 1kHz               | 0.0432            | 3.60    |
| MS127-270MT       | 27           | ± 20%           | 1kHz               | 0.0459            | 3.40    |
| MS127-330MT       | 33           | ± 20%           | 1kHz               | 0.0648            | 3.00    |
| MS127-390MT       | 39           | ± 20%           | 1kHz               | 0.0729            | 2.75    |
| MS127-470MT       | 47           | ± 20%           | 1kHz               | 0.1000            | 2.50    |
| MS127-560MT       | 56           | ± 20%           | 1kHz               | 0.110             | 2.35    |
| MS127-680MT       | 68           | ± 20%           | 1kHz               | 0.140             | 2.10    |
| MS127-820MT       | 82           | ± 20%           | 1kHz               | 0.160             | 1.95    |
| MS127-101MT       | 100          | ± 20%           | 1kHz               | 0.220             | 1.70    |
| MS127-121MT       | 120          | ± 20%           | 1kHz               | 0.250             | 1.60    |
| MS127-151MT       | 150          | ± 20%           | 1kHz               | 0.280             | 1.42    |
| MS127-181MT       | 180          | ± 20%           | 1kHz               | 0.350             | 1.30    |
| MS127-221MT       | 220          | ± 20%           | 1kHz               | 0.390             | 1.16    |
| MS127-271MT       | 270          | ± 20%           | 1kHz               | 0.560             | 1.06    |
| MS127-331MT       | 330          | ± 20%           | 1kHz               | 0.640             | 0.95    |
| MS127-391MT       | 390          | ± 20%           | 1kHz               | 0.700             | 0.88    |
| MS127-471MT       | 470          | ± 20%           | 1kHz               | 0.980             | 0.79    |
| MS127-561MT       | 560          | ± 20%           | 1kHz               | 1.070             | 0.73    |
| MS127-681MT       | 680          | ± 20%           | 1kHz               | 1.460             | 0.67    |
| MS127-821MT       | 820          | ± 20%           | 1kHz               | 1.640             | 0.60    |
| MS127-102MT       | 1000         | ± 20%           | 1kHz               | 1.820             | 0.55    |

Isat: 飽和電流，加Isat時，電感值相對初始值下降 ≤ 20%

Isat: Saturation Current, the current when the inductance becomes 20% lower than its initial value.

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