# Sealed Choke Coil SDET25201T type

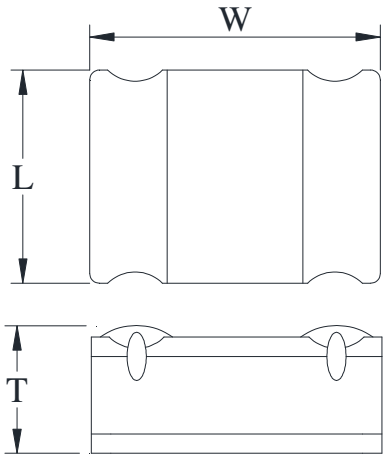
## Features

Low profile：2.5mm x 2.0mm x 1.0mm
Low coil resistance with large currents.
High magnetic shield construction should actualize high resolution for EMC protection.
100% lead (Pb) free meet RoHS standard

## Application

Cellular phones, LCD displays, HDDs, DVCs, DSCs, PDAs etc..

## Outline Dimensions

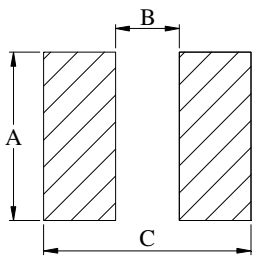



| Code | Dimensions (mm) |
|---|---|
| L | 2.0 ± 0.2 |
| W | 2.5 ± 0.2 |
| T | 1.0 Max. |

Note ： This graph is in regard to outline dimensions spec. For outer appearance, please refer to actual product.

## Recommend Land Pattern Dimensions

The customer shall determine the land dimensions shown below after confirming and safety.




| | |
|---|---|
| A | 2.1 |
| B | 0.8 |
| C | 2.6 |

Unit : mm

## Specifications

| Part Number | L0 Inductance ( μH ) @ (0A) | $R_{dc}$ ( mΩ) | | Heat Rating Current DC Amps. Idc ( A ) | | Saturation Current DC Amps. Isat ( A ) | |
|---|---|---|---|---|---|---|---|
| | | Typical | Maximum | Typical | Maximum | Typical | Maximum |
| SDET25201T-R24MS | 0.24 | 29 | 35 | 3.60 | 3.24 | 4.60 | 4.14 |
| SDET25201T-R47MS | 0.47 | 35 | 43 | 2.70 | 2.43 | 2.90 | 2.61 |
| SDET25201T-R68MS | 0.68 | 48 | 58 | 2.50 | 2.25 | 2.70 | 2.43 |
| SDET25201T-1R0MS | 1.0 | 67 | 81 | 1.98 | 1.78 | 2.10 | 1.89 |
| SDET25201T-1R5MS | 1.5 | 95 | 114 | 1.70 | 1.53 | 1.80 | 1.62 |
| SDET25201T-2R2MS | 2.2 | 135 | 162 | 1.50 | 1.35 | 1.55 | 1.39 |
| SDET25201T-3R3MS | 3.3 | 207 | 249 | 1.2 | 1.04 | 1.3 | 1.17 |
| SDET25201T-4R7MS | 4.7 | 269 | 323 | 1.08 | 0.97 | 1.20 | 1.08 |
| SDET25201T-6R8MS | 6.8 | 404 | 485 | 0.81 | 0.73 | 0.85 | 0.77 |
| SDET25201T-100MS | 10.0 | 507 | 609 | 0.80 | 0.72 | 0.73 | 0.65 |
| SDET25201T-150MS | 15.0 | 928 | 1,114 | 0.45 | 0.40 | 0.55 | 0.49 |
| SDET25201T-220MS | 22.0 | 1,312 | 1,574 | 0.35 | 0.31 | 0.45 | 0.40 |

*：If you require another part number please contact with us.

**：Inductance Tolerance ± 20%

Note 1.： All test data is referenced to 25℃ ambient.

Note 2.： Test Condition:1MHz, 1.0Vrms

Note 3.： Idc : DC current (A) that will cause an approximate △T of 40℃

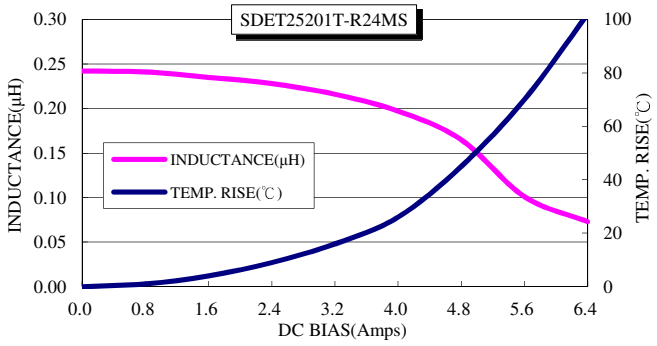
Note 4.： Isat : DC current (A) that will cause L0 to drop approximately 30%

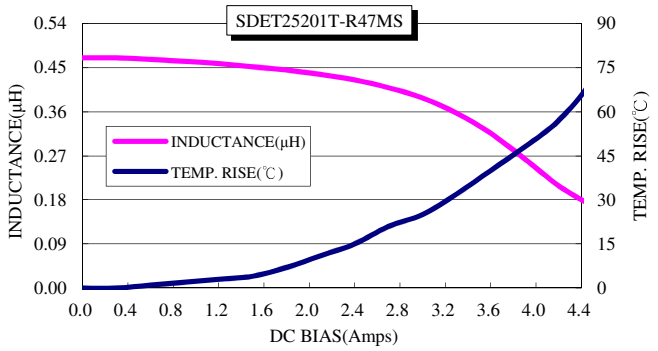
Note 5.： Operating Temperature Range -55℃ to + 125℃

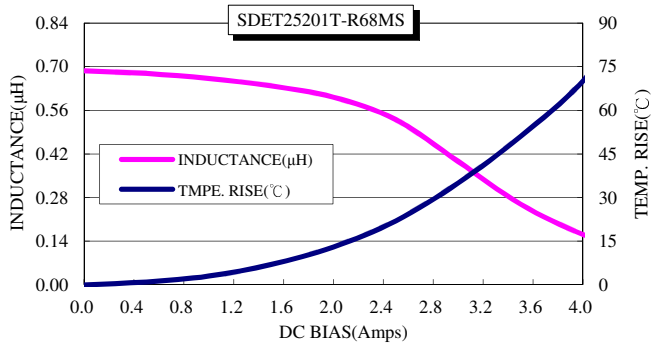
Note 6.： The part temperature (ambient + temp rise) should not exceed 125℃ under the worst case operating. Circuit design, component placement, PCB trace size and thickness, airflow and other cooling provision all affect the part temperature. Part temperature should be verified in the end application.

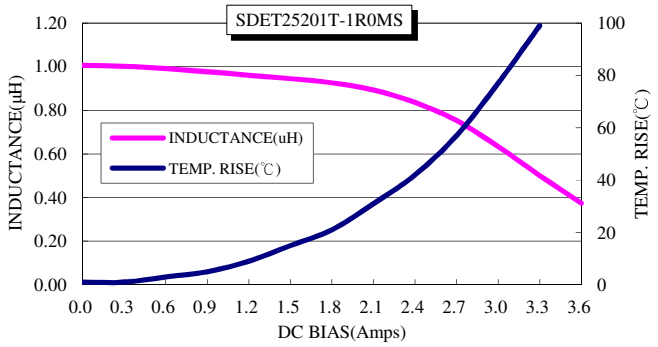
Note 7.： The rated current as listed is either the saturation current or the heating current depending on which value is lower.

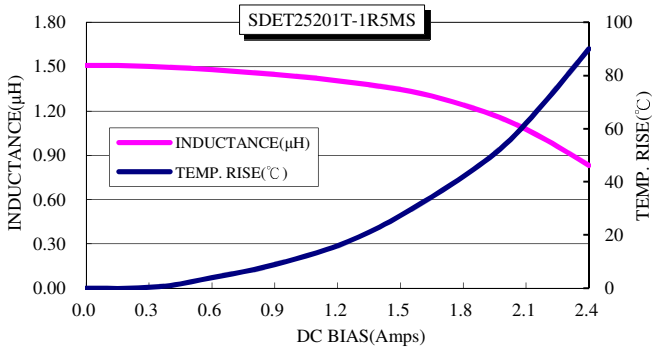
## Current Characteristic

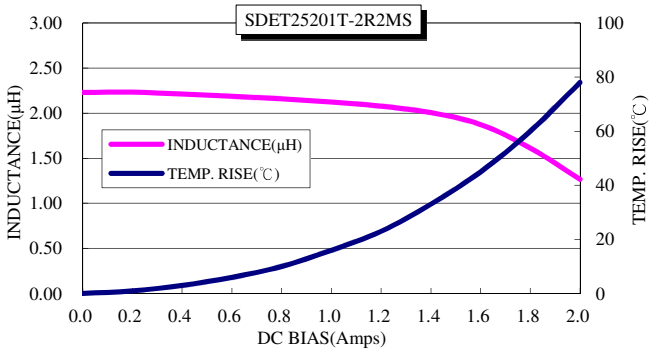


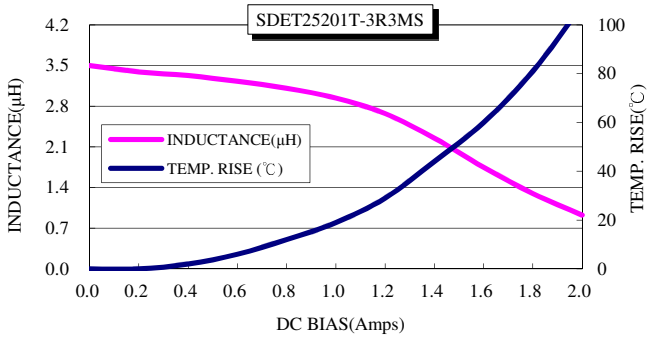



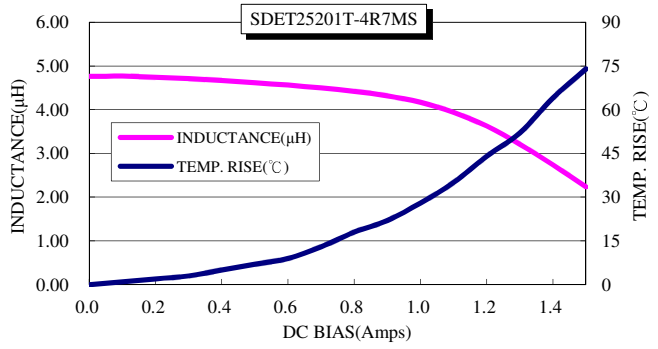



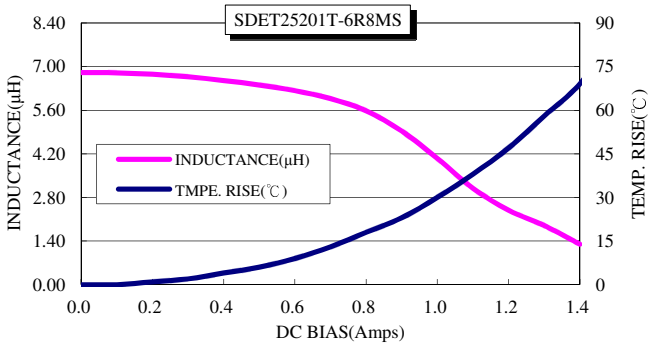



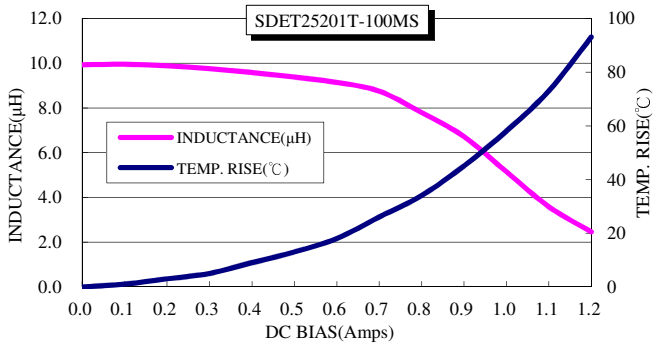



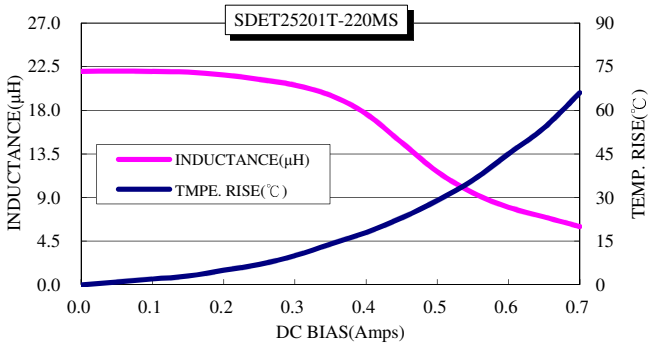




SDET25201T-6R8MS
INDUCTANCE(μH)
TEMP. RISE(℃)
INDUCTANCE(μH)
TMPE. RISE(℃)
DC BIAS(Amps)
8.40
7.00
5.60
4.20
2.80
1.40
0.00
90
75
60
45
30
15
0
0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4


SDET25201T-100MS
INDUCTANCE(μH)
TEMP. RISE(℃)
INDUCTANCE(μH)
TEMP. RISE(℃)
DC BIAS(Amps)
12.0
10.0
8.0
6.0
4.0
2.0
0.0
100
80
60
40
20
0
0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2


SDET25201T-220MS
INDUCTANCE(μH)
TEMP. RISE(℃)
INDUCTANCE(μH)
TMPE. RISE(℃)
DC BIAS(Amps)
27.0
22.5
18.0
13.5
9.0
4.5
0.0
90
75
60
45
30
15
0
0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7