

| | | | |
|----------|------------------|-----------------|---------------------------|
| ITEM P/N | TPMA0605S-SERIES | TEST INSTRUMENT | HP4284 / CH16502 Equality |
| PRODUCT | SMD Inductor | TEST FREQUENCY | 100 kHz / 1.0V |

CUSTOMER :

CUSTOMER P/N :

DESCRIPTION : SMD INDUCTOR

SINKA P/N : Tmpa0605s-series

REVISION NO. : 01

DATE : 2020/5/17

NOTES : STANDARD

| | |
|----------------------|------------------|
| DOCUMENTED BY | |
| APPROVED | Y Imai |
| CHECKED | Cosby Liu |
| PREPARED | Wenny Wei |

CUSTOMER APPROVAL

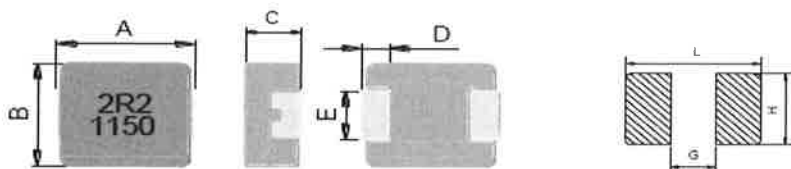
company seals

COIL SPECIFICATION

RoHS
COMPLIANT

| | | | |
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PACKING DIMENSIONS (mm)

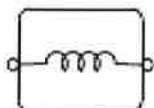


| TMPA 0605 | Dimensions |
|--------------|------------|
| A | 7.3 ± 0.3 |
| B | 6.6 ± 0.3 |
| C | 4.8 ± 0.2 |
| D | 1.6 ± 0.3 |
| E | 3.0 ± 0.3 |
| L | 8.0 Typ |
| G | 3.5 Typ |
| H | 3.4 Typ |

EXPLANATION OF PART NUMBERS

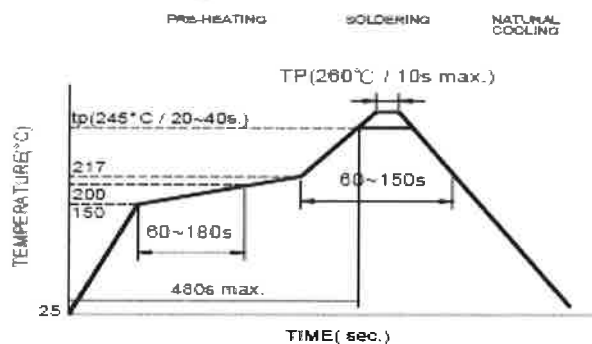
| | | | | | | | | | | | |
|---------------------|---|---|---|-------------|---|------------------------|----|---|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| T | M | P | A | 0 | 6 | 0 | 5S | R | 4 | 7 | M |
| Serial Codes | | | | Size | | Inductance Code | | | | | |

CONNECTIONS



- ⊙ Inductor Contents ONE (1) Set(s) of Coil
- ⊙ DC/AC Current Shall Be Introduced By Any One of Two Pads

RECOMMENDED SOLDERING TEMP. GRAPH



Reflow times: 3 times max.

Manual Soldering for rework

Solder Iron Temperature : 350 °Cmax
 Soldering Times : Less than 5sec
 (Manual Soldering is 1 time only)

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ELECTRICAL CHARACTERISTICS

| P/N | L0 Inductance $\mu\text{H} \pm 20\%$ @0A | DCR (m Ω) | | Heat Rating Current | | Saturation Current | |
|-------------------|---|-------------------|---------|------------------------|-----|-----------------------|------|
| | | [Typical] | [Max] | Idc (AMP) | | Isat (AMP) | |
| | | | | Typ | Max | Typ | Max |
| TMPA0605S-R47MN-D | 0.47 | 2.9 | 3.3 | 22 | 20 | 22 | 20 |
| TMPA0605S-R68MN-D | 0.68 | 3.6 | 4.1 | 20 | 18 | 20 | 17 |
| TMPA0605S-1R0MN-D | 1.00 | 5.6 | 6.2 | 17 | 15 | 16 | 13 |
| TMPA0605S-1R5MN-D | 1.50 | 6.6 | 7.3 | 15 | 13 | 13 | 10.5 |
| TMPA0605S-2R2MN-D | 2.20 | 10 | 11.5 | 14 | 12 | 10 | 8.5 |
| TMPA0605S-3R3MN-D | 3.30 | 14 | 16.2 | 13 | 11 | 9.5 | 8.0 |
| TMPA0605S-4R7MN-D | 4.70 | 20.8 | 24 | 11 | 9.5 | 8.8 | 7.5 |
| TMPA0605S-6R8MN-D | 6.80 | 30 | 36 | 9.0 | 8.0 | 7.6 | 7.0 |
| TMPA0605S-8R2MN-D | 8.20 | 38.5 | 45 | 7.5 | 6.5 | 6.5 | 6.0 |
| TMPA0605S-100MN-D | 10.0 | 44 | 53 | 7.0 | 6.0 | 6.0 | 5.7 |
| TMPA0605S-150MN-D | 15.0 | 73 | 85 | 5.0 | 4.0 | 4.0 | 3.2 |
| TMPA0605S-220MN-D | 22.0 | 122 | 142 | 4.2 | 3.6 | 3.6 | 3.1 |
| TMPA0605S-470MN-D | 47.0 | 275 | 320 | 2.6 | 2.0 | 1.8 | 1.5 |

Note:

1. Test frequency : L : 100kHz / 1.0V;
2. All test data referenced to 25°C ambient.
3. Testing Instrument : L: HP4284A, CH11025, CH3302, CH1320 ,CH1320S LCR METER / Rdc: CH16502, Agilent33420A MICRO OHMMETER.
4. Heat Rated Current (I_{rms}) will cause the coil temperature rise approximately Δt of 40°C (keep 1min.).
5. Saturation Current (I_{sat}) will cause L0 to drop 20% typical. (keep quickly).
6. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
7. Special inquiries besides the above common used types can be met on your requirement.

Storage Condition

Temperature : 0 ~ 40°C

Humidity : 20~65%RH

Marking

Marking showed inductance value

2R2 = Inductance (2.2uH)

1150 = Date Code

11 = Years (2011)

50 = Weeks

Structure

| NO | Items | Materials |
|----|----------------|-------------------------------|
| 1 | Core | Alloy Powder |
| 2 | Wire | Polyester Wire or equivalent. |
| 3 | Solder Plating | 100% Pb free solder |
| 4 | paint | Epoxy resin |
| 5 | Ink | Halogen-free ketone |

ITEM P/N

TMPA0605S-SERIES

TEST INSTRUMENT

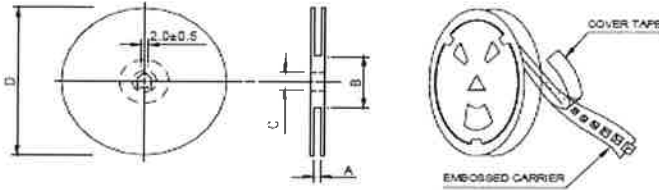
HP4284 / CH16502 Equality

PRODUCT

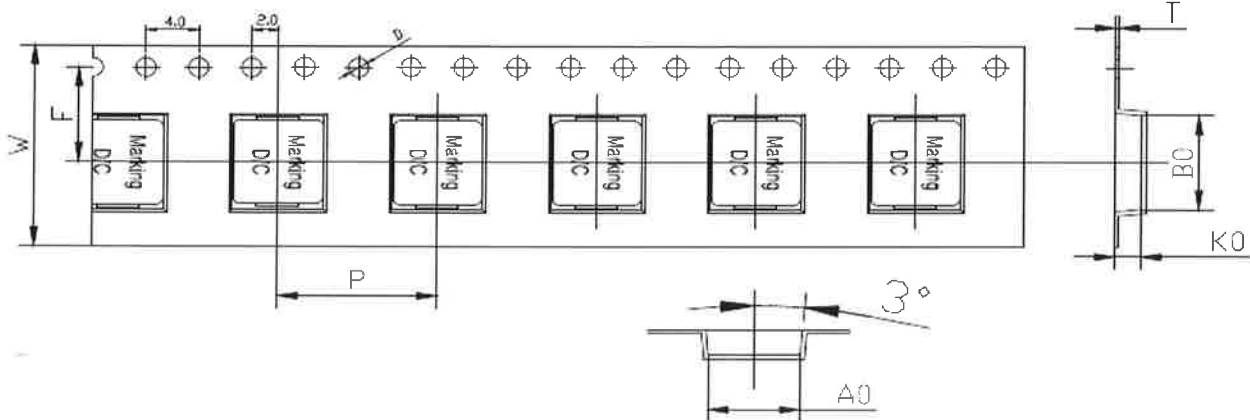
SMD Inductor

TEST FREQUENCY

100 kHz / 1.0V

PACKING INFORMATION**(1) Reel Dimension**

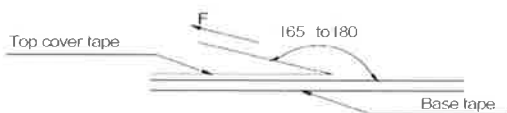
| Type | A(mm) | B(mm) | C(mm) | D(mm) |
|----------|----------|-------|----------|-------|
| 13"x16mm | 16.4±2.0 | 100±2 | 13.5±0.5 | 330 |

(2) Tape Dimension

| Series | Size | Bo(mm) | Ao(mm) | Ko(mm) | P(mm) | W(mm) | F(mm) | t(mm) | D(mm) |
|--------|------|---------|---------|---------|----------|--------|---------|-----------|---------|
| TMPA | 0605 | 7.7±0.1 | 7.0±0.1 | 5.3±0.1 | 12.0±0.1 | 16±0.3 | 7.5±0.1 | 0.35±0.05 | 1.5±0.1 |

(3) Packaging Quantity

| TMPA | 0605 |
|-------------|------|
| Chip / Reel | 900 |
| Inner box | 1600 |
| Carton | 9400 |

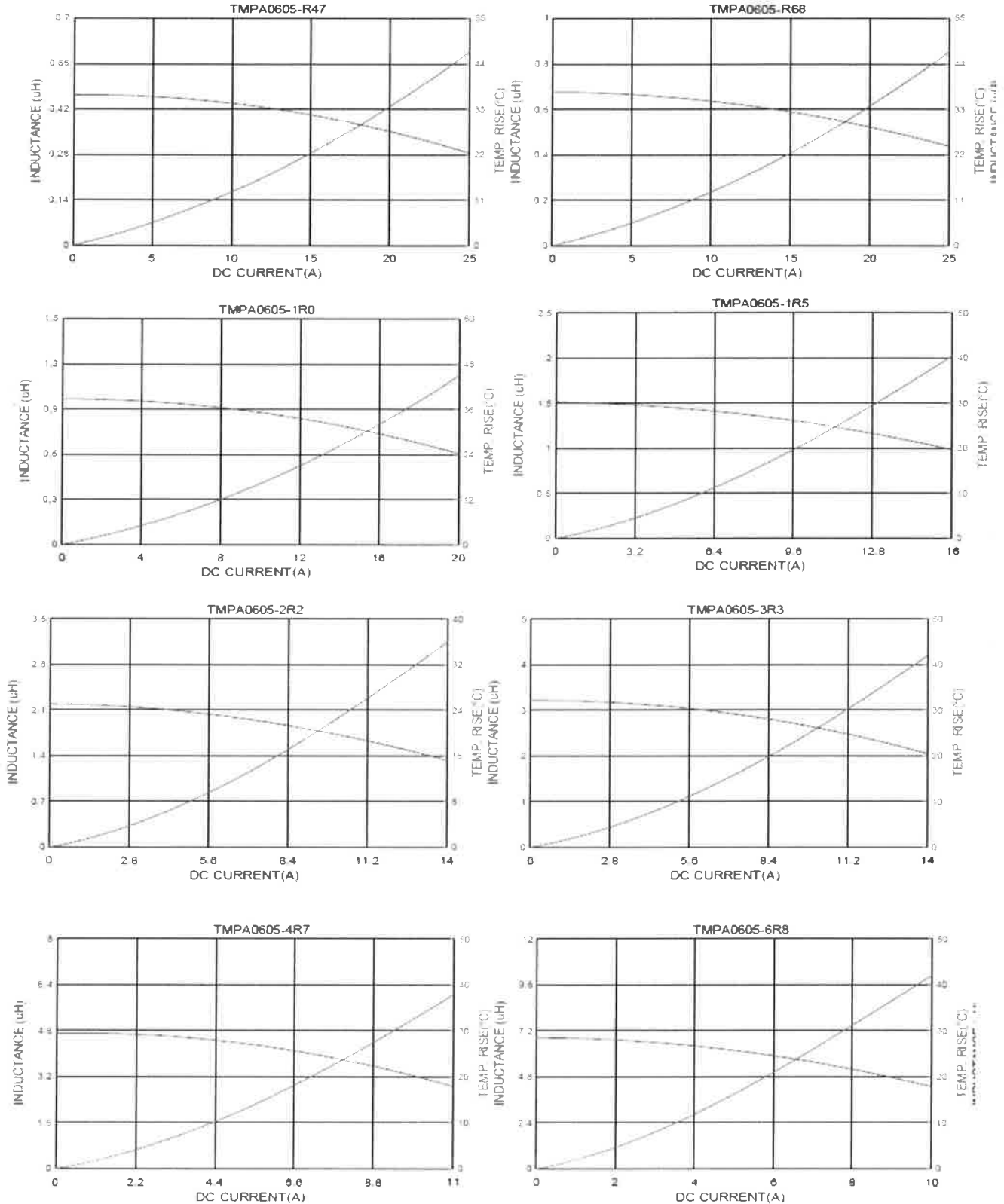
(4) Tearing Off Force

The force for tearing off cover tape is 10 to 130 grams in the arrow direction under the following conditions (referenced ANSI/EIA-481-C-2003 of 4.11 standard).

| Room Temp. (°C) | Room Humidity (%) | Room atm (hPa) | Tearing Speed mm/min |
|-----------------|-------------------|----------------|----------------------|
| 5-35 | 45-85 | 860-1060 | 300 |

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Typical Performance Curve



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