

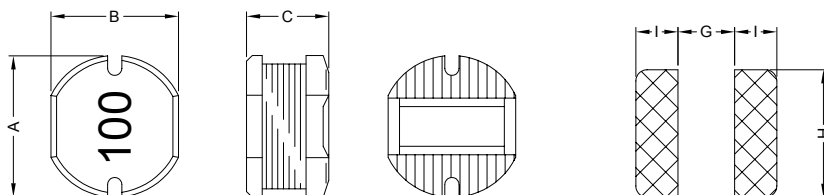
1. PART NO. EXPRESSION :

PDC0705100MZ F

- (a) Series code (d) Tolerance code : K = ±10%, M = ±20%
- (b) Dimension code (e) X, Y, Z : Standard part
- (c) Inductance code : 100 = 10uH (f) F : Lead Free

www.datasheet4u.com

2. CONFIGURATION & DIMENSIONS :

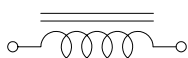


PCB Pattern

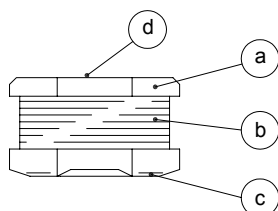
Unit : mm

| A | B | C | G | H | I |
|---------|---------|---------|-----------|-----------|-----------|
| 7.8±0.3 | 7.0±0.3 | 5.0±0.5 | 2.00 Ref. | 7.50 Ref. | 3.00 Ref. |

3. SCHEMATIC :



4. MATERIALS :



- (a) Core : DR Ferrite Core
- (b) Wire : Enamelled Copper Wire
- (c) Terminal : Ag+Cu+Ni+Sn
- (d) Ink : Bon Margue

5. GENERAL SPECIFICATION :

- a) Temp. rise : 40°C Max.
- b) Rated current : Base on temp. rise & $\Delta L/L0A = 10\%$ Max.
- c) Storage temp. : -40°C to +125°C
- d) Operating temp. : -40°C to +85°C
- e) Resistance to solder heat : 260°C.10 secs



RoHS Compliant

NOTE : Specifications subject to change without notice. Please check our website for latest information.

01.05.2008



SUPERWORLD ELECTRONICS (S) PTE LTD

PG. 1

6. ELECTRICAL CHARACTERISTICS :

| Part No. | Inductance (μ H) | Test Frequency (Hz) | RDC (Ω) Max. | IDC (A) Max. |
|---------------|--------------------------|-----------------------------|-----------------------------|----------------------|
| PDC0705100MZF | 10 \pm 20% | 2.52M | 0.07 | 2.30 |
| PDC0705120MZF | 12 \pm 20% | 2.52M | 0.08 | 2.00 |
| PDC0705150MZF | 15 \pm 20% | 2.52M | 0.09 | 1.80 |
| PDC0705180MZF | 18 \pm 20% | 2.52M | 0.10 | 1.60 |
| PDC0705220MZF | 22 \pm 20% | 2.52M | 0.11 | 1.50 |
| PDC0705270MZF | 27 \pm 20% | 2.52M | 0.12 | 1.30 |
| PDC0705330MZF | 33 \pm 20% | 2.52M | 0.13 | 1.20 |
| PDC0705390MZF | 39 \pm 20% | 2.52M | 0.16 | 1.10 |
| PDC0705470KZF | 47 \pm 10% | 2.52M | 0.18 | 1.10 |
| PDC0705560KZF | 56 \pm 10% | 2.52M | 0.24 | 0.94 |
| PDC0705680KZF | 68 \pm 10% | 2.52M | 0.28 | 0.85 |
| PDC0705820KZF | 82 \pm 10% | 2.52M | 0.37 | 0.78 |
| PDC0705101KZF | 100 \pm 10% | 1V / 1K | 0.43 | 0.72 |
| PDC0705121KZF | 120 \pm 10% | 1V / 1K | 0.47 | 0.66 |
| PDC0705151KZF | 150 \pm 10% | 1V / 1K | 0.64 | 0.58 |
| PDC0705181KZF | 180 \pm 10% | 1V / 1K | 0.71 | 0.51 |
| PDC0705221KZF | 220 \pm 10% | 1V / 1K | 0.96 | 0.49 |
| PDC0705271KZF | 270 \pm 10% | 1V / 1K | 1.11 | 0.42 |
| PDC0705331KZF | 330 \pm 10% | 1V / 1K | 1.26 | 0.40 |
| PDC0705391KZF | 390 \pm 10% | 1V / 1K | 1.77 | 0.36 |
| PDC0705471KZF | 470 \pm 10% | 1V / 1K | 1.96 | 0.34 |

www.datasheet4u.com



RoHS Compliant

NOTE : Specifications subject to change without notice. Please check our website for latest information.

01.05.2008



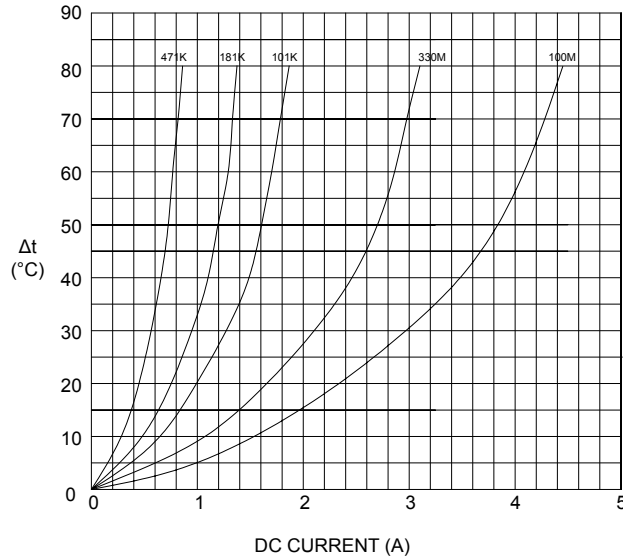
SUPERWORLD ELECTRONICS (S) PTE LTD

PG. 2

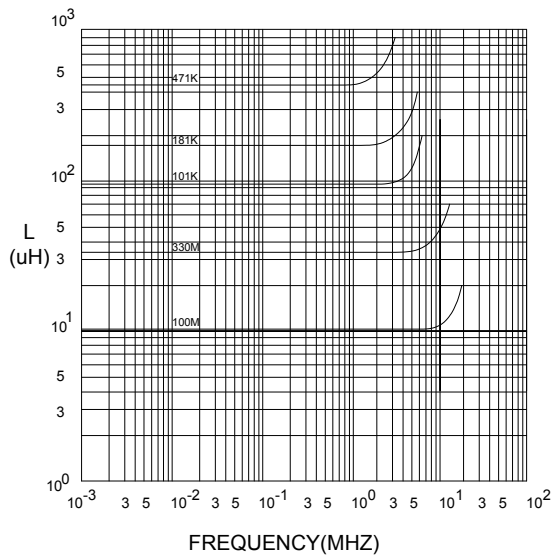
7. CHARACTERISTICS CURVES :

www.datasheet4u.com

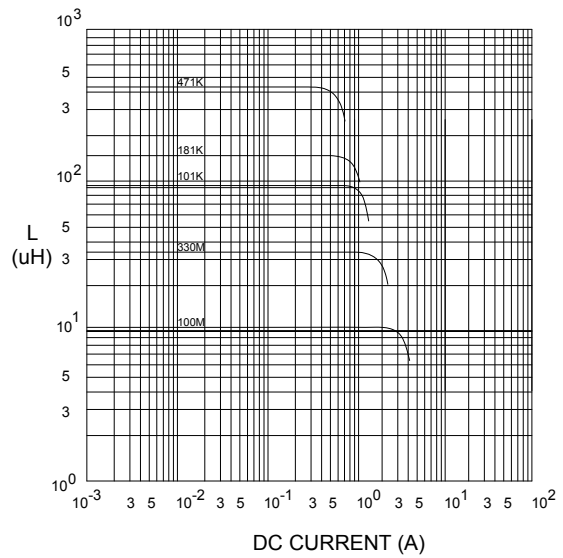
@ TEMP. RISE VS. DC SUPERPOSITION RESPONSE CURVE



@ INDUCTANCE VS. FREQUENCY RESPONSE CURVE



@ INDUCTANCE VS. DC SUPERPOSITION RESPONSE CURVE



NOTE : Specifications subject to change without notice. Please check our website for latest information.



RoHS Compliant

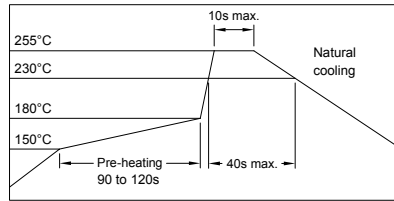
01.05.2008



SUPERWORLD ELECTRONICS (S) PTE LTD

PG. 3

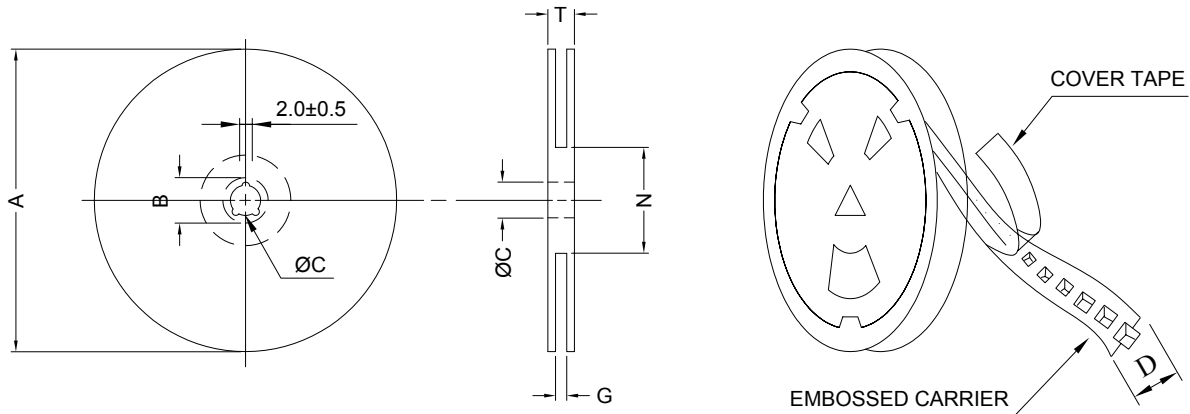
RECOMMENDED SOLDERING CONDITIONS REFLOW SOLDERINGS



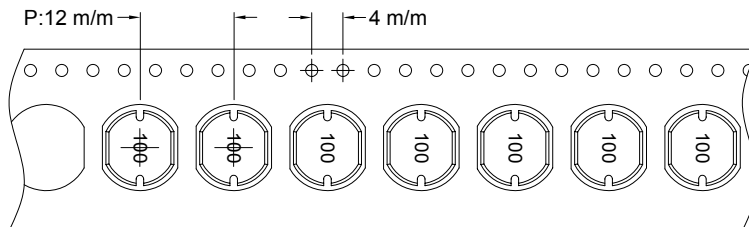
www.datasheet4u.com

8. PACKAGING INFORMATION :

(1) CONFIGURATION



* CARRIER TAPE WIDTH : D



(2) DIMENSIONS

Unit:m/m

| STYLE | A | B | C | D | G | N | T |
|-------|-----|--------|--------|----|------------------|------------------|------|
| 13-16 | 330 | 21±0.8 | 13±0.5 | 16 | 18 ⁺⁰ | 50 ⁻⁰ | 22.4 |
| 7-16 | 178 | 21±0.8 | 13±0.5 | 16 | 18 ⁺⁰ | 50 ⁻⁰ | 22.4 |

(3) Q'TY & G.W. PER PACKAGE

| SERIES | INNER : REEL | | | OUTER : CARTON | | |
|---------|--------------|-----------|---------|----------------|-----------|--------------|
| | Q'TY (PCS) | G.W. (gw) | STYLE | Q'TY (PCS) | G.W. (Kg) | SIZE (cm) |
| PDC0705 | 1000 | 1300 | 13 - 16 | 6000 | 11.3 | 40 x 40 x 24 |
| PDC0705 | 500 | 800 | 7 - 16 | 2500 | 7.5 | 40 x 40 x 24 |



RoHS Compliant

NOTE : Specifications subject to change without notice. Please check our website for latest information.

01.05.2008



SUPERWORLD ELECTRONICS (S) PTE LTD

PG. 4

9. RELIABILITY AND TEST CONDITION :

| TEST ITEM | SPECIFICATION | TEST CONDITION |
|-------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| SOLDERABILITY | MORE THAN 90% OF THE TERMINAL ELECTRODE SHALL BE COVERED WITH FRESH SOLDER. | PREHEAT : 125±25°C FOR 60 SECONDS SOLDER : 99%Sn/0.3%Ag/0.7%Cu or equivalent SOLDER TEMP. : 245±5°C FLUX : ROSIN DIP TIME : 4±1 SECONDS |
| THERMAL SHOCK TEST (TEMP. CYCLE) | INDUCTANCE SHALL NOT CHANGE MORE THAN ±20% | ROOM TEMP. → -25±2°C 15 MINUTES → 30 MINUTES ROOM TEMP. → 85±2°C 15 MINUTES → 30 MINUTES TOTAL : 50 CYCLES |
| HUMIDITY RESISTANCE TEST | | TEMPERATURE : 40±2°C HUMIDITY : 90 ~ 95% APPLIED CURRENT : PER SPEC. TIME : 500 HOURS |
| HIGH TEMP. RESISTANCE TEST | | TEMPERATURE : 85±2°C APPLIED CURRENT : PER SPEC. TIME : 500 HOURS |

10. UL CARD :

| | | | | |
|-------------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------|-------------|----------------|
| OBMW2 | | November 30, 2000 | | |
| Magnet Wire - Component | | | | |
| PACIFIC ELECTRIC WIRE & CABLE (SHENZHEN) CO LTD | | | | E201757 |
| 607 BAOLONG INDUSTRIAL ESTATE LONGGANG, SHENZHEN GUANGDONG CHINA | | | | |
| | Coating Type | | ANSI | |
| Mtl Dsg | BC | TC | Type | TI |
| UEW/U | Polyurethane | — | | 130 |
| PEW/U | Polyester | — | MW5-C | 155°C |
| PEWH/U | Modified Polyester | — | MW30-C | 180 |
| PEW-NY/U | Polyester | Polyamide | MW24-C | 155 |
| HAI/U | Polyester(Amide)(Imide) | Polyamideimide | MW35,73 | 200 |
| UEW-NY/U | Polyurethane | Polyamide | MW80-C | 155 |
| | | | MW28-C | 130 |
| Marking: Company name and material designation or marked designation on package or reel, and Recognized Component Mark. | | | | |
| See General Information Preceding These Recognitions | | | | |
| 1/3/2001 | Underwriters Laboratories Inc. | | Card 1 of 2 | |



RoHS Compliant

NOTE : Specifications subject to change without notice. Please check our website for latest information.

01.05.2008



SUPERWORLD ELECTRONICS (S) PTE LTD

PG. 5