SMD POWER INDUCTORS

PDC0705 SERIES

1. PART NO. EXPRESSION :

P D C 0 7 0 5 1 0 0 M Z F

(a) (b) (c) (d)(e)(f)

(a) Series code

(b) Dimension code

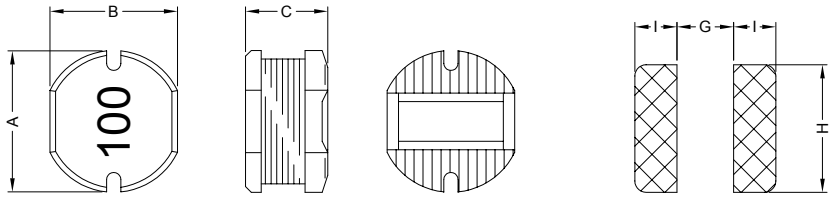
(c) Inductance code : 100 = 10uH

(d) Tolerance code : K = ±10%, M = ±20%

(e) X, Y, Z : Standard part

(f) F : Lead Free

2. CONFIGURATION & DIMENSIONS :

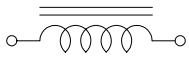


PCB Pattern

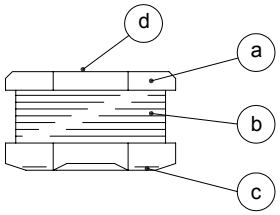
Unit : mm

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 & ΔL/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

6. ELECTRICAL CHARACTERISTICS :

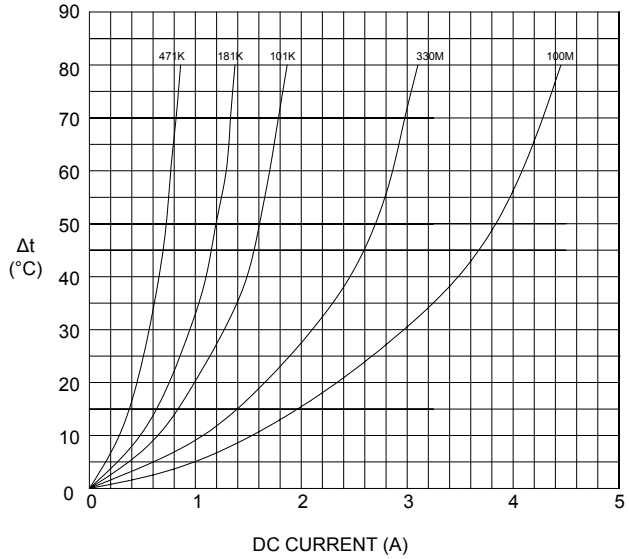
Part No.	Inductance (μH)	Test Frequency (Hz)	RDC (Ω) Max.	IDC (A) Max.
PDC0705100MZF	10±20%	2.52M	0.07	2.30
PDC0705120MZF	12±20%	2.52M	0.08	2.00
PDC0705150MZF	15±20%	2.52M	0.09	1.80
PDC0705180MZF	18±20%	2.52M	0.10	1.60
PDC0705220MZF	22±20%	2.52M	0.11	1.50
PDC0705270MZF	27±20%	2.52M	0.12	1.30
PDC0705330MZF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

RoHS Compliant

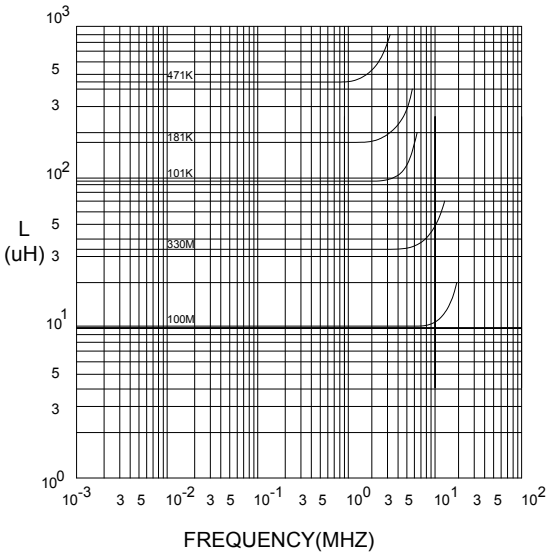
NOTE : Specifications subject to change without notice. Please check our website for latest information.

7. CHARACTERISTICS CURVES :

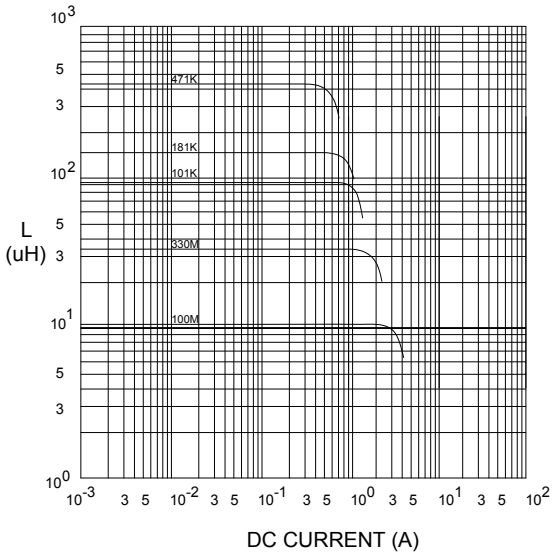
@ TEMP. RISE VS. DC SUPERPOSITION RESPONSE CURVE



@ INDUCTANCE VS. FREQUENCY RESPONSE CURVE



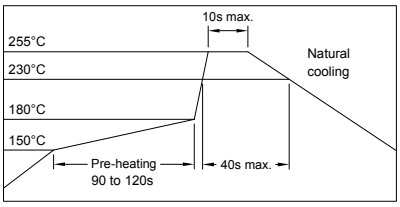
@ INDUCTANCE VS. DC SUPERPOSITION RESPONSE CURVE



RoHS Compliant

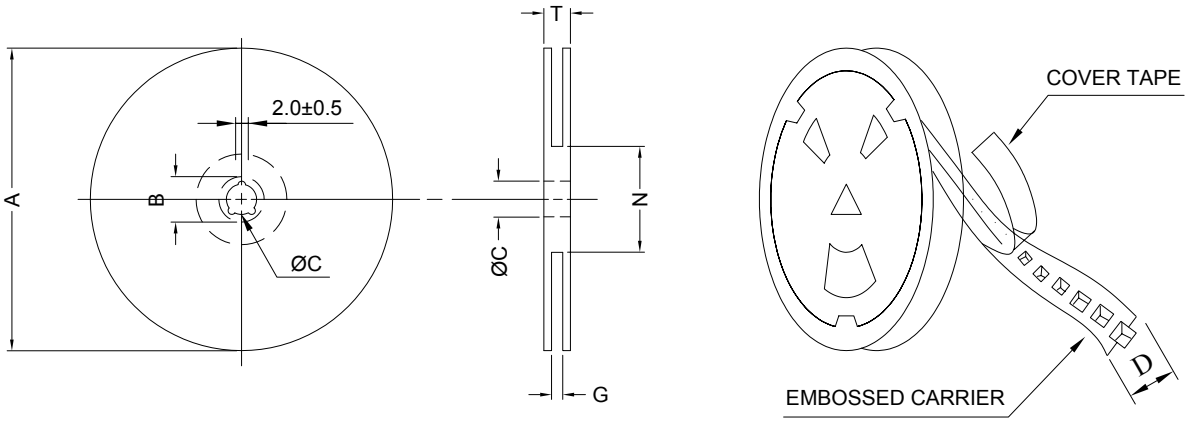
NOTE : Specifications subject to change without notice. Please check our website for latest information.

RECOMMENDED SOLDERING CONDITIONS
REFLOW SOLDERINGS

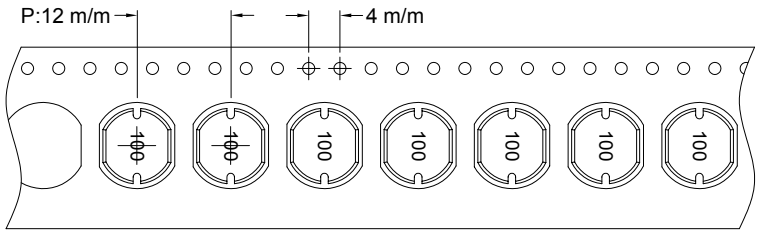


8. PACKAGING INFORMATION :

(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.

9. RELIABILTY 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. (15 MINUTES) → -25±2°C (30 MINUTES) ROOM TEMP. (15 MINUTES) → 85±2°C (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.