SMD POWER INDUCTORS

PDC0703 SERIES

1. PART NO. EXPRESSION :

P D C 0 7 0 3 1 0 0 M Z F

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

(a) Series code

(b) Dimension code

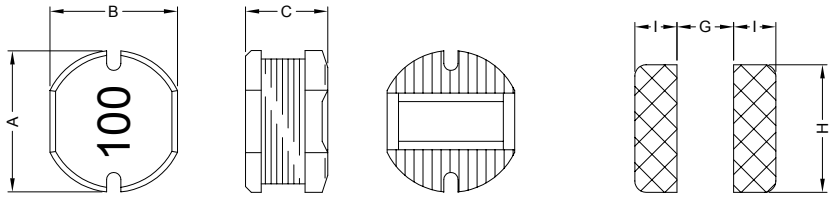
(c) Inductance code : 100 = 10uH

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

(e) X, Y, Z : Standard part

(f) F : Lead Free

2. CONFIGURATION & DIMENSIONS :

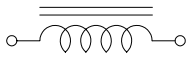


PCB Pattern

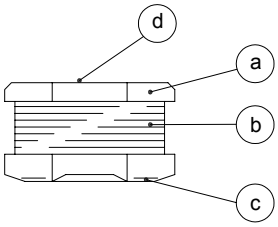
Unit : mm

A	B	C	G	H	I
7.8±0.3	7.0±0.3	3.5±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 :

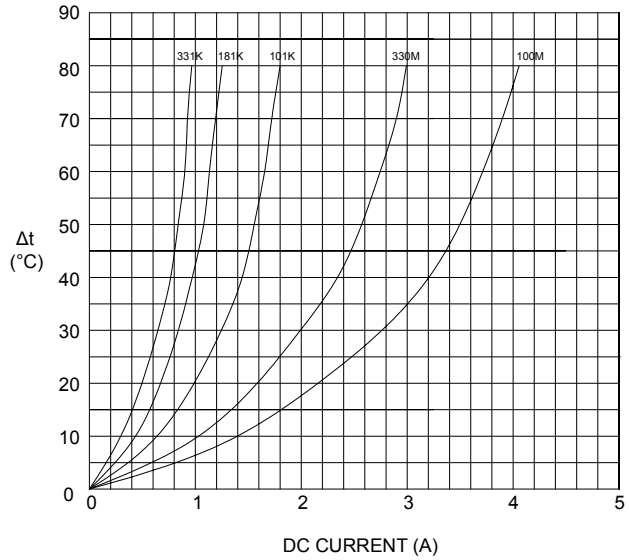
Part No.	Inductance (μH)	Test Frequency (Hz)	RDC (Ω) Max.	IDC (A) Max.
PDC0703100MZF	10±20%	2.52M	0.0803	1.44
PDC0703120MZF	12±20%	2.52M	0.0897	1.39
PDC0703150MZF	15±20%	2.52M	0.104	1.24
PDC0703180MZF	18±20%	2.52M	0.111	1.12
PDC0703220MZF	22±20%	2.52M	0.129	1.07
PDC0703270MZF	27±20%	2.52M	0.153	0.94
PDC0703330MZF	33±20%	2.52M	0.170	0.85
PDC0703390MZF	39±20%	2.52M	0.217	0.74
PDC0703470MZF	47±20%	2.52M	0.252	0.68
PDC0703560KZF	56±10%	2.52M	0.282	0.64
PDC0703680KZF	68±10%	2.52M	0.332	0.59
PDC0703820KZF	82±10%	2.52M	0.406	0.54
PDC0703101KZF	100±10%	1V / 1K	0.481	0.51
PDC0703121KZF	120±10%	1V / 1K	0.536	0.49
PDC0703151KZF	150±10%	1V / 1K	0.755	0.40
PDC0703181KZF	180±10%	1V / 1K	1.022	0.36
PDC0703221KZF	220±10%	1V / 1K	1.200	0.31
PDC0703271KZF	270±10%	1V / 1K	1.306	0.29
PDC0703331KZF	330±10%	1V / 1K	1.495	0.28

RoHS Compliant

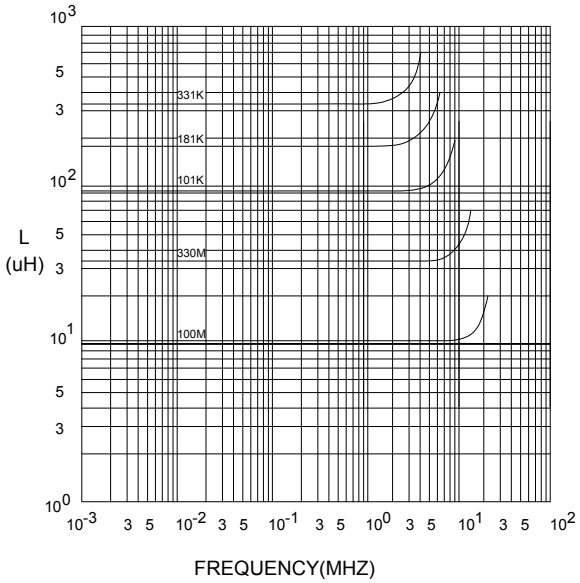
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7. CHARACTERISTICS CURVES :

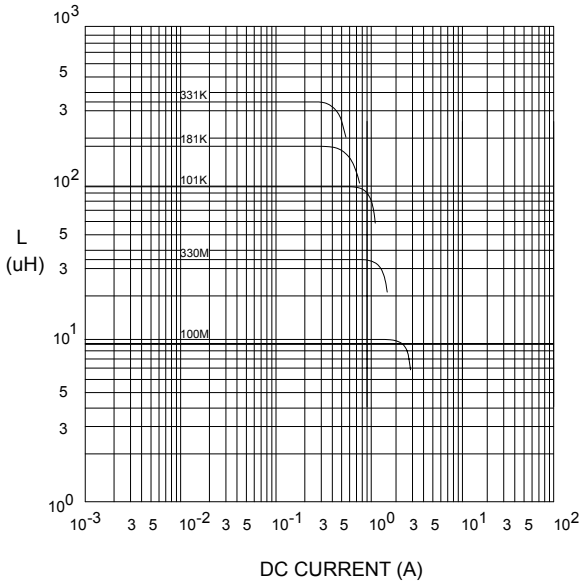
@ TEMP. RISE VS. DC SUPERPOSITION RESPONSE CURVE



@ INDUCTANCE VS. FREQUENCY RESPONSE CURVE



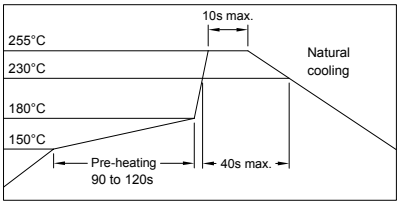
@ INDUCTANCE VS. DC SUPERPOSITION RESPONSE CURVE



RoHS Compliant

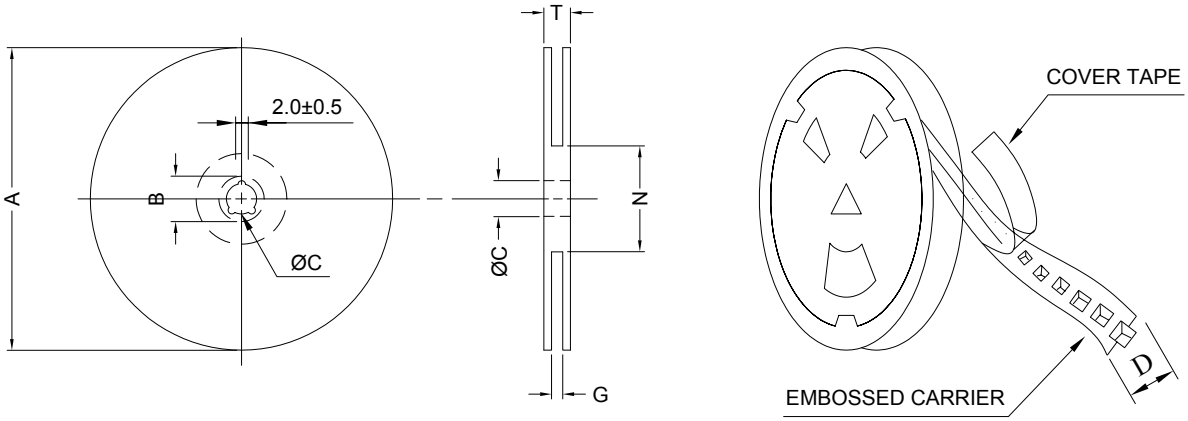
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RECOMMENDED SOLDERING CONDITIONS
REFLOW SOLDERINGS

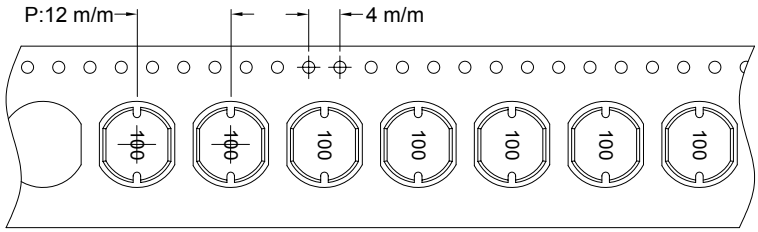


8. PACKAGING INFORMATION :

(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

(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)
PDC0703	1000	950	13 - 16	6000	9.2	40 x 40 x 24

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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

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