SMD POWER INDUCTORS

PDC0302 SERIES

1. PART NO. EXPRESSION :

P D C 0 3 0 2 1 R 0 M Z F

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

(a) Series code

(b) Dimension code

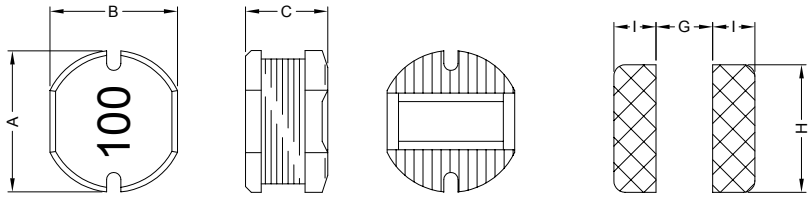
(c) Inductance code : 1R0 = 1.0uH

(d) Tolerance code : M = ±20%

(e) X, Y, Z : Standard part

(f) F : Lead Free

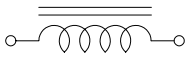
2. CONFIGURATION & DIMENSIONS :



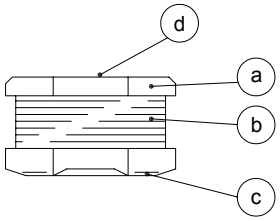
PCB Pattern

A	B	C	G	H	I
3.5±0.3	3.0±0.3	2.2±0.3	0.80 Ref.	3.50 Ref.	1.60 Ref.

3. SCHEMATIC :



4. MATERIALS :



(a) Core : DRT 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 :

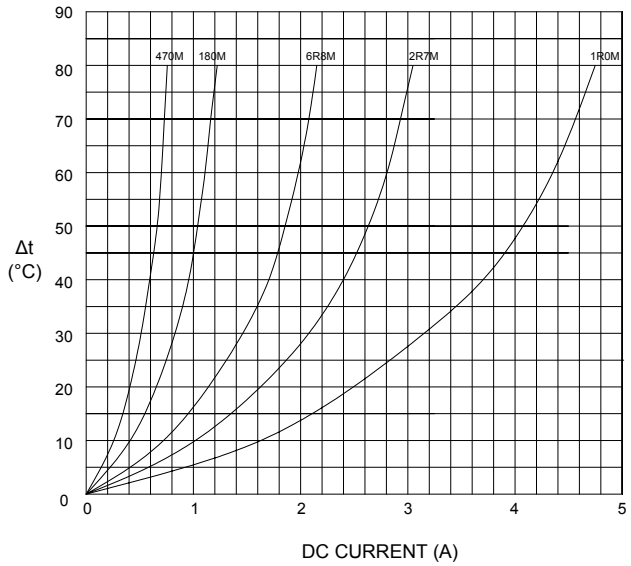
Part No.	Inductance (μH)	Test Frequency (Hz)	RDC (Ω) Max.	IDC (A) Max.
PDC03021R0MZF	1.0±20%	1V / 7.96M	0.055	2.50
PDC03021R4MZF	1.4±20%	1V / 7.96M	0.060	2.00
PDC03021R8MZF	1.8±20%	1V / 7.96M	0.070	1.90
PDC03022R2MZF	2.2±20%	1V / 7.96M	0.090	1.70
PDC03022R7MZF	2.7±20%	1V / 7.96M	0.100	1.60
PDC03023R3MZF	3.3±20%	1V / 7.96M	0.130	1.30
PDC03023R9MZF	3.9±20%	1V / 7.96M	0.150	1.20
PDC03024R7MZF	4.7±20%	1V / 7.96M	0.180	1.10
PDC03025R6MZF	5.6±20%	1V / 7.96M	0.210	1.00
PDC03026R8MZF	6.8±20%	1V / 7.96M	0.230	0.95
PDC03028R2MZF	8.2±20%	1V / 7.96M	0.310	0.90
PDC0302100MZF	10.0±20%	1V / 2.52M	0.350	0.80
PDC0302120MZF	12.0±20%	1V / 2.52M	0.390	0.70
PDC0302150MZF	15.0±20%	1V / 2.52M	0.540	0.65
PDC0302180MZF	18.0±20%	1V / 2.52M	0.620	0.60
PDC0302220MZF	22.0±20%	1V / 2.52M	0.720	0.55
PDC0302270MZF	27.0±20%	1V / 2.52M	0.820	0.50
PDC0302330MZF	33.0±20%	1V / 2.52M	1.100	0.45
PDC0302390MZF	39.0±20%	1V / 2.52M	1.200	0.40
PDC0302470MZF	47.0±20%	1V / 2.52M	1.600	0.38

RoHS Compliant

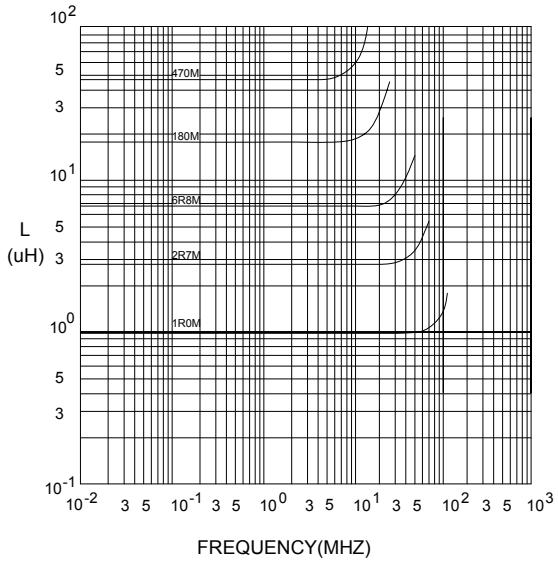
NOTE : Specifications subject to change without notice. Please check our website for latest information.

7. CHARACTERISTICS CURVES :

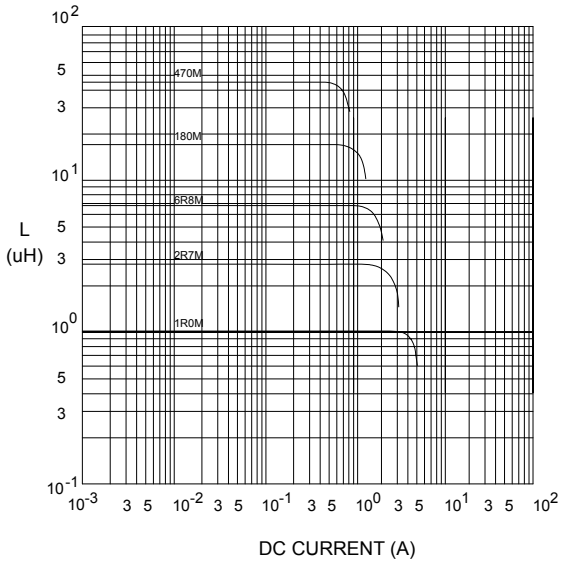
@ TEMP. RISE VS. DC SUPERPOSITION RESPONSE CURVE



@ INDUCTANCE VS. FREQUENCY RESPONSE CURVE



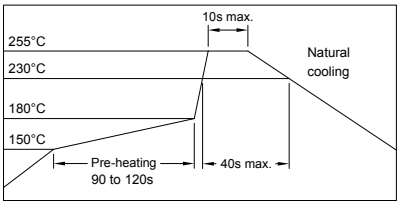
@ INDUCTANCE VS. DC SUPERPOSITION RESPONSE CURVE



RoHS Compliant

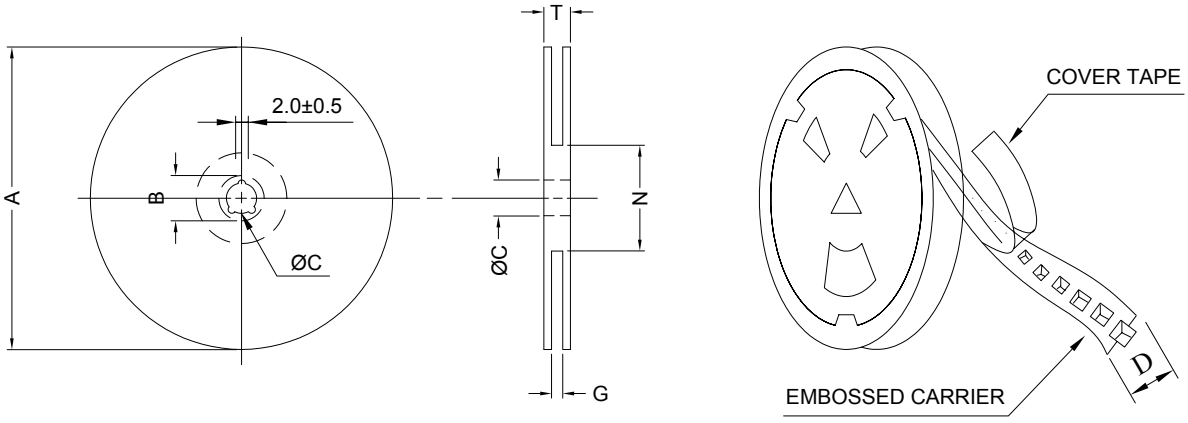
NOTE : Specifications subject to change without notice. Please check our website for latest information.

RECOMMENDED SOLDERING CONDITIONS
REFLOW SOLDERINGS

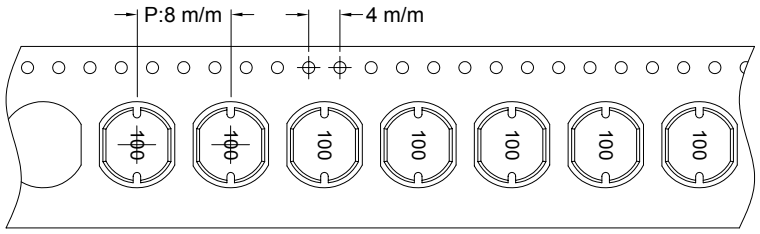


8. PACKAGING INFORMATION :

(1) CONFIGURATION



* CARRIER TAPE WIDTH : D



(2) DIMENSIONS

Unit:m/m

STYLE	A	B	C	D	G	N	T
13 - 12	330	21±0.8	13±0.5	12	14^{+0}	50^{-0}	18.4

(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)
PDC0302	3,000	780	13 - 12	24,000	9.80	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.