

**Part no. CMR1014HP**

1 mH ±10% Ferrite Leaded Inductor, Q:20, 350mA Idc, 1176mΩ Rdc, 8RBH

SPECIFICATION APPROVALCUSTOMER : BEC DistributionPRODUCT : CMR1014HP-102K-CMPb-freeCODE NO. : C04710191CUS. CODE :SPEC.NO. : C-4710-191(00)DATE : 24-Feb-16

CUSTOMER APPROVAL

BEC DISTRIBUTION Ltd.

www.bec.co.uk

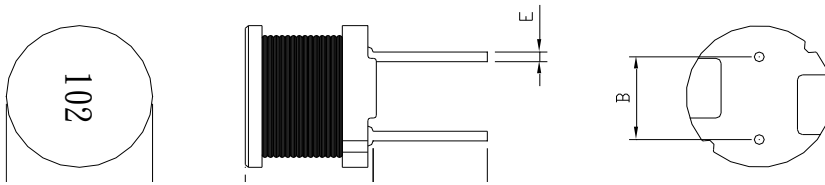
email: sales@bec.co.uk

Phone: +44(0)1844 275824

PREPARED BY	APPROVED BY	AUTHORIZED BY
JEAN	TONY	MASCOT

PRODUCT	CMR1014HP-102K-CM	COIL SPECIFICATION	DATE	2016/2/24
SPEC.NO.	C-4710-191(00)		CODE NO.	C04710191

EXTERNAL DIMENSIONS :

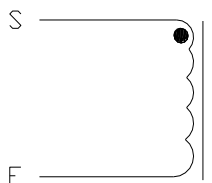


- A : 10.5 Max. m/m
- B : 5.0±0.5 m/m
- C : 5.0±1.0 m/m
- D : 15.5 Max. m/m
- E : 0.7 Ref. m/m

ELECTRICAL CHARACTERISTIC :

- L(mH) : 1.0±10% 1KHz 0.3V
- DCR(Ω) : 1.15 Max.
- IDC(A) : 0.8 Max. (L0.8A MAX ≥ 0Ax90%)
- INDUCTANCE DROP : 10% Typ. @ IDC 0.80 A
- SRF (MHz) : 1.10 Typ.
- Operating Temperature Range : - 40°C ~ +125°C

SCHEMA



φ 0.27x163.5Ts(Ref.)

MATERIAL LIST :

NO	ITEM	MATERIAL	SUPPLIER OF THE MATERIAL
1	CORE	F4D DR2W10*14(SW)RCH B5 F9 P5	
2	WIRE	NY-0270-2UEW	
3	INKING	BLACK INKING	
4			

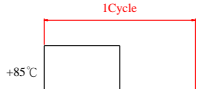
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TEST DATA

ELECTRICAL CHARACTERISTICS								
MEAS. ITEM	L(mH)	DCR(Ω)	IDC(A)	SRF				
TEST FREQ.	1KHz 0.3V	Max.	Max.	Typ.				
YOUR			L(0.52A)					
SPEC.	1.0 \pm 10%	1.15	\cong 0Ax90%	1.10				
1	1.02	1.03	0.96	1.13				
2	1.03	1.02	0.96	1.17				
3	1.01	1.03	0.94	1.14				
4	1.02	1.04	0.95	1.16				
5	1.03	1.02	0.95	1.13				
6	1.00	1.03	0.93	1.14				
7	1.01	1.04	0.93	1.14				
8	1.02	1.04	0.94	1.15				
9	1.01	1.03	0.93	1.13				
10	1.03	1.03	0.95	1.16				
X	1.018	1.031	0.945	1.145				
R	0.03	0.02	0.04	0.04				

DIMENSION								
MEAS. ITEM	A	B	C	D	E			
TEST FREQ.	m/m	m/m	m/m	m/m	m/m			
YOUR								
SPEC.	10.5 Max.	5.0 \pm 0.5	5.0 \pm 1.0	15.5 Max.	0.7 Ref.			
1	10.12	4.95	5.20	14.12	0.75			
2	10.10	5.02	5.44	14.16	0.75			
3	10.13	4.98	5.07	14.11	0.76			
4	10.14	4.92	5.24	14.10	0.79			
5	10.08	5.06	5.33	14.16	0.78			
6								
7								
8								
9								
10								
X	10.114	4.986	5.256	14.130	0.766			
R	0.06	0.14	0.37	0.06	0.04			

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TEST ITEMS	SPECIFICATIONS	TEST CONDITIONS / TEST METHODS		
<u>ELECTRICAL PERFORMANCE TEST</u>				
L	REFER TO STANDARD ELECTRICAL CHARACTERISTIC LIST.	CH-1061 OR EQUIV.		
DCR		CH-502A OR EQUIV		
RATED CURRENT		APPLIED THE CURRENT TO COILS THE INDUCTANCE CHANGE SHOULD BE LESS THAN 10% TO INITIAL VALUE AND TEMPERATURE RISE SHOULD NOT BE MORE THAN 40°C..		
TEMPERATURE RISE TEST	40°C MAX (Δt)	1. APPLIED THE ALLOWED DC CURRENT FOR 4 HOURS. 2. TEMPERATURE MEASURE BY DIGITAL SURFACE THERMOMETER.		
OVER LOAD TEST	NO EVIDENCE OF ELECTRICAL DAMAGE	APPLIED 1.5 TIMES OF RATED ALLOWED DC CURRENT TO INDUCTORS FOR A PERIOD OF 5 MINUTES.		
<u>MECHANICAL PERFORMANCE TEST</u>				
SOLDER HEAT RESISTANCE	1. INDUCTORS SHOULD HAVE NO EVIDENCE OF ELECTRICAL AND MECHANICAL DAMAGE 2. INDUCTANCE SHOULD NOT CHANGE MORE THAN $\pm 10\%$ 3. SOLDER MATERIAL WILL BE LEAD FREE.	PREHEAT: 150°C 60SECS		
VIBRATION TEST (LOW FREQUENCY)		SOLDER TEMPERATURE: 255 \pm 5°C		
SHOCK TEST	FLUX: ROXIN.. DIP TIME: 10 \pm 0.5SECS. 1. AMPLITUDE: 1.5 mm 2. FREQUENCY: 10-55-10HZ / 1 MIN 3. DIRECTION: X, Y, Z 4. DURATION: 2 HRS/X, Y, Z INDUCTORS SHOULD BE DROPPED 10 TIMES FROM A HEIGHT OF 1m ONTO 3cm WOODEN BOARD.			

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TEST ITEMS	SPECIFICATIONS	TEST CONDITIONS / TEST METHODS		
<u>CLIMATIC TEST</u>				
TEMPERATURE CHARACTERISTIC	1.APPEARANCE:NO DAMAGE 2.INDUCTANCE:WITHIN±10% OF INITIAL VALUE.	- 40°C ~ +105°C		
HUMIDITY TEST		60°C±2°C / 96±2 HOURS		
LOW TEMPERATURE STORAGE		1.TEMPERATURE:- 25°C±2°C 2.TIME: 96±2 HOURS		
THERMAL SHOCK TEST		1.-25±5°C FOR 30 MINUTES. +80±5°C FOR 30 MINUTES. 2.TOTAL: 10 CYCLES		
HIGH TEMPERATURE STORAGE		1.APPLIED CURRENT: MAX RATED CURRENT 2.TEMPERATURE:80°C±2°C		
NOTE : INDUCTORS ARE TO BE TESTED AFTER 2 HOUR AT ROOM TEMPERATURE.				
<u>LIFE TEST</u>				
HIGH TEMPERATURE LOAD LIFE TEST	INDUCTORS SHOULD BE NO EVIDENCE OF SHORT OR OPEN CIRCUIT	1. TEMPERATURE: 80±2°C 2. TIME: 500±12 HOURS 3. LOAD: ALLOWED DC CURREN		
HUMIDITY LOAD LIFE TEST		1. TEMPERATURE: 60±2°C 2. R.H.: 90-95% 3. TIME: 500±12 HOURS 4. LOAD: ALLOWED DC CURREN		

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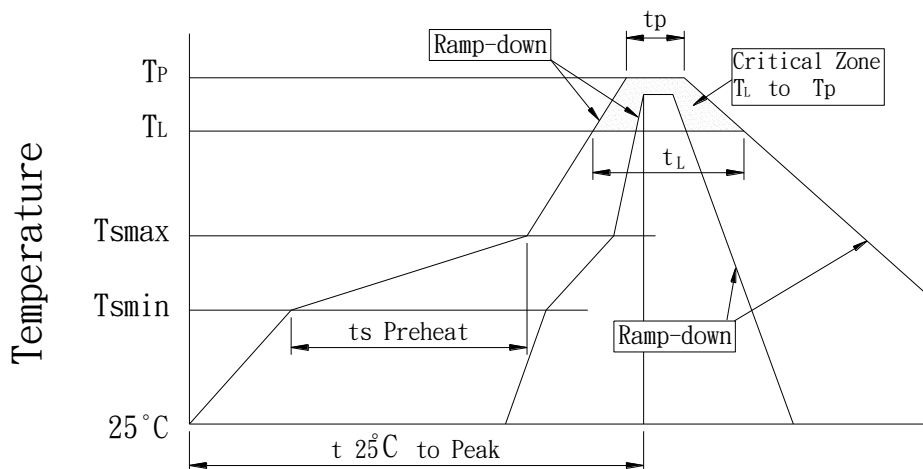
RECOMMENDED SOLDERING CONDITIONS :

CLASSIFICATION REFLOW PROFILES

Profile Feature	Sn-Pb Eutectic Assembly		Pb-Free Assembly	
	Large Body	Small Body	Large Body	Small Body
Average ramp-up rate (T _L to T _P)	3°C/second max.		3°C/second max.	
Preheat				
-Temperature Min (T _{Smin})	100°C		150°C	
-Temperature Min (T _{Smax})	150°C		200°C	
-Time (min to max) (t _s)	60-120 seconds		60-180 seconds	
T _{Smax} to T _L				
-Ramp-up Rate			3°C/second max.	
Time maintained above:				
-Temperature (T _L)	183°C		217°C	
-Time (t _L)	60-150 seconds		60-150 seconds	
Peak Temperature (T _p)	225 +0/-5°C	240 +0/-5°C	245 +0/-5°C	255 +5/-5°C
Time within 5°C of actual Peak Temperature (t _p)	10-30 seconds	10-30 seconds	10-30 seconds	20-40 seconds
Ramp-down Rate	6°C/second max.		6°C/second max.	
Time 25°C to Peak Temperature	6 minutes max.		8 minutes max.	

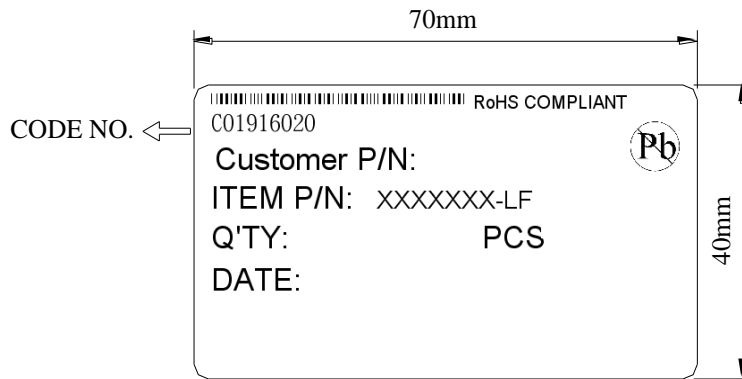
Note : All temperatures refer t topside of the package. Measured on the package body surface.

REFLOW SLODERINGS

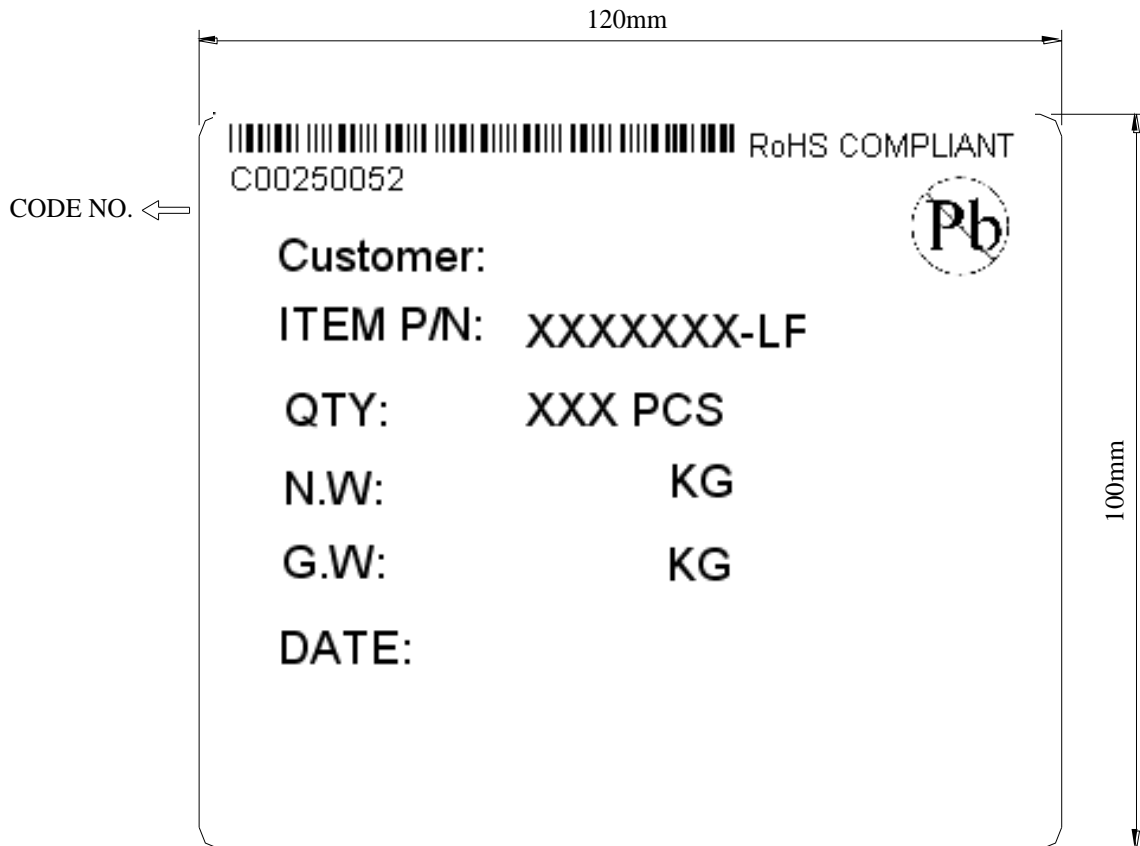


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TABLE :



INNER BOX LABEL



OUT BOX LABEL