ELC08D101E alternative

Part No BCE08-101K-JD

100 µH Unshielded Inductor 800 mA 120mOhm Radial, Vertical Cylinder

RoHS Compliant

SPECIFICATION APPROVAL

CUSTOMER	:	BEC Distribution
PRODUCT	:	BCE08-101K-JD
		Pb-free
CODE NO.	:	C04789028
CUS. CODE	:	
SPEC.NO.	:	C-4789-028(02)
DATE	:	20-Jul-06

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

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PRODUCT	BCE08-101K-JD	COIL SPECIFICATION	DATE	2006/7/20
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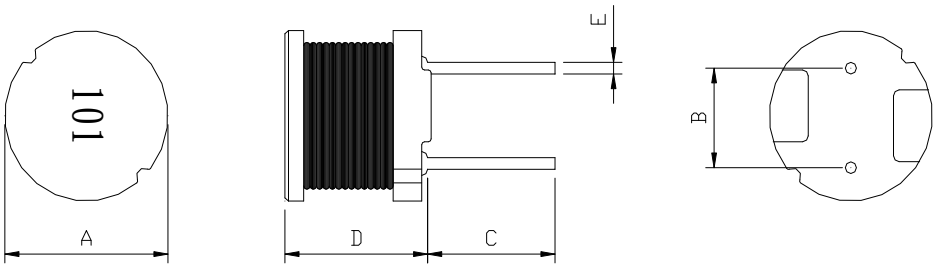
EXTERNAL DIMENSIONS :

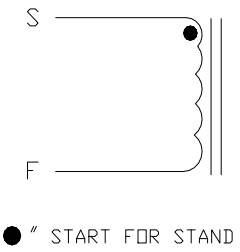


A ： 8.3 Max. m/m
B ： 5.0 Ref. m/m
C ： 5.0 Ref. m/m
D ： 9.5 Max. m/m
E ： 0.65 Ref. m/m

ELECTRICAL CHARACTERISTIC :

L(μH)	:	100±10%	1KHz / 1V
DCR(Ω)	:	0.19	Max.
IDC(A)	:	0.90	Max. (L0.9A MAX ≧0Ax90%)
INDUCTANCE DROP :		10% MAX @ IDC	0.9 A
Operating temperature Range :		- 40℃ ~ +125℃	

SCHEMATIC DRAWING :



ϕ 0.4x38.5Ts(Ref.)

MATERIAL LIST :

NO	ITEM	MATERIAL	SUPPLIER OF THE MATERIAL
1	CORE	F4D DR2W7.8*9.3(SW) RCH B3.5 F5.0 P5.0	
2	WIRE	NY-0320-2UEW	YIAXHENGXIN INDUSTRIAL CO., LTD.
3	INKING	BLACK INKING	
4			

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TEST DATA

ELECTRICAL CHARACTERISTICS								
MEAS. ITEM	L(μH)	DCR(Ω)	IDC(A)					
TEST FREQ.	1KHz / 1V	Max.	Max.					
YOUR			L(0.9A)					
SPEC.	100±10%	0.19	≧0Ax90%					
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
X	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**					
R	**0.00**	**0.00**	**0.00**					

DIMENSION								
MEAS. ITEM	A	B	C	D	E			
TEST FREQ.	m/m	m/m	m/m	m/m	m/m			
YOUR								
SPEC.	8.3 Max.	5.0 Ref.	5.0 Ref.	9.5 Max.	0.65 Ref.			
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
X	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**			
R	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**			

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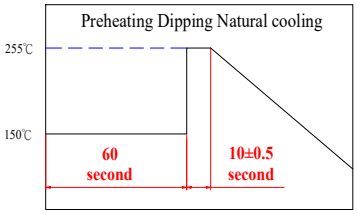
TEST ITEMS	SPECIFICATIONS	TEST CONDITIONS / TEST METHODS
ELECTRICAL PERFORMANCE TEST		
L	REFER TO STANDARD ELEC-TRICAL CHARACTERISTIC LIST.	CH-1061 OR EQUIV.
DCR		CH-502A OR EQUIV
RATED CURRENT		APPLIED THE CURRENT TO COILS THE IDUCTANCE CHANGE SHOULD BE LESS THAN 10% TO INITIAL VALUE AND TEMPERATURE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

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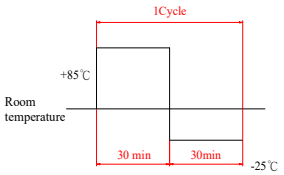
TEST ITEMS	SPECIFICATIONS	TEST CONDITIONS / TEST METHODS
CLIMATIC TEST		
TEMPERATURE CHARACTERISTIC	1.APPEARANCE:NO DAMAGE 2.INDUCTANCE:WITHIN±10% OF INITIAL VALUE.	- 40℃ ~ +125℃
HUMIDITY TEST		60℃±2℃ / 96±2 HOURS
LOW TEMPERATURE STORAGE		1.TEMPERATURE:- 25℃±2℃ 2.TIME: 96±2 HOURS
THERMAL SHOCK TEST		1.-25±5℃ FOR 30 MINUTES. +80±5℃ FOR 30 MINUTES. 2.TOTAL: 10 CYCLES 
HIGH TEMPERATURE STORAGE		1.APPLIED CURRENT: MAX RATED CURRENT 2.TEMPERATURE:80℃±2℃
NOTE：INDUCTORS ARE TO BE TESTED AFTER 2 HOUR AT ROOM TEMPERATURE.		
LIFE TEST		
HIGH TEMPERATURE LOAD LIFE TEST	INDUCTORS SHOULD BE NO EVIDENCE OF SHORT OR OPEN CIRCUIT	1. TEMPERATURE: 80±2℃ 2. TIME: 500±12 HOURS 3. LOAD: ALLOWED DC CURREN
HUMIDITY LOAD LIFE TEST		1. TEMPERATURE: 60±2℃ 2. R.H.: 90-95% 3. TIME: 500±12 HOURS 4. LOAD: ALLOWED DC CURREN

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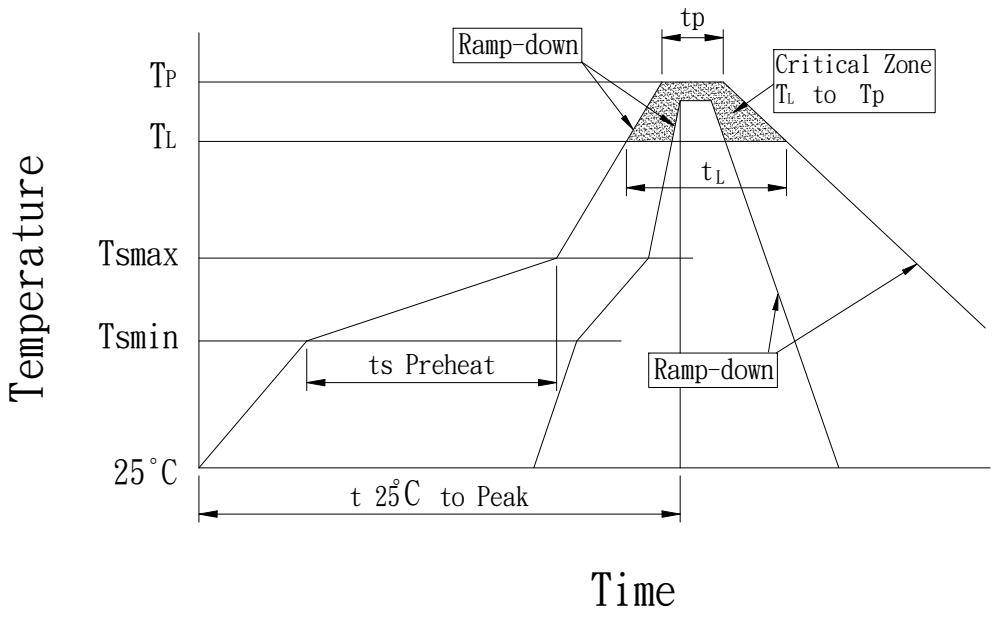
RECOMMENDED SOLDERING CONDITIONS：

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℃/second max.		3℃/second max.	
Preheat -Temperature Min (Ts_{min}) -Temperature Min (Ts_{max}) -Time (min to max) (ts)	100℃ 150℃ 60-120 seconds		150℃ 200℃ 60-180 seconds	
Tsmax to T_L -Ramp-up Rate			3℃/second max.	
Time maintained above: -Temperature (T_L) -Time (t_L)	183℃ 60-150 seconds		217℃ 60-150 seconds	
Peak Temperature (Tp)	225 +0/-5℃	240 +0/-5℃	245 +0/-5℃	255 +5/-5℃
Time within 5℃ of actual Peak Temperature (tp)	10-30 seconds	10-30 seconds	10-30 seconds	20-40 seconds
Ramp-down Rate	6℃/second max.		6℃/second max.	
Time 25℃ 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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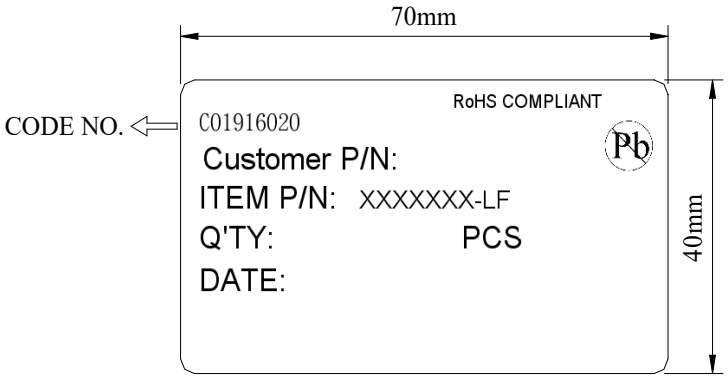
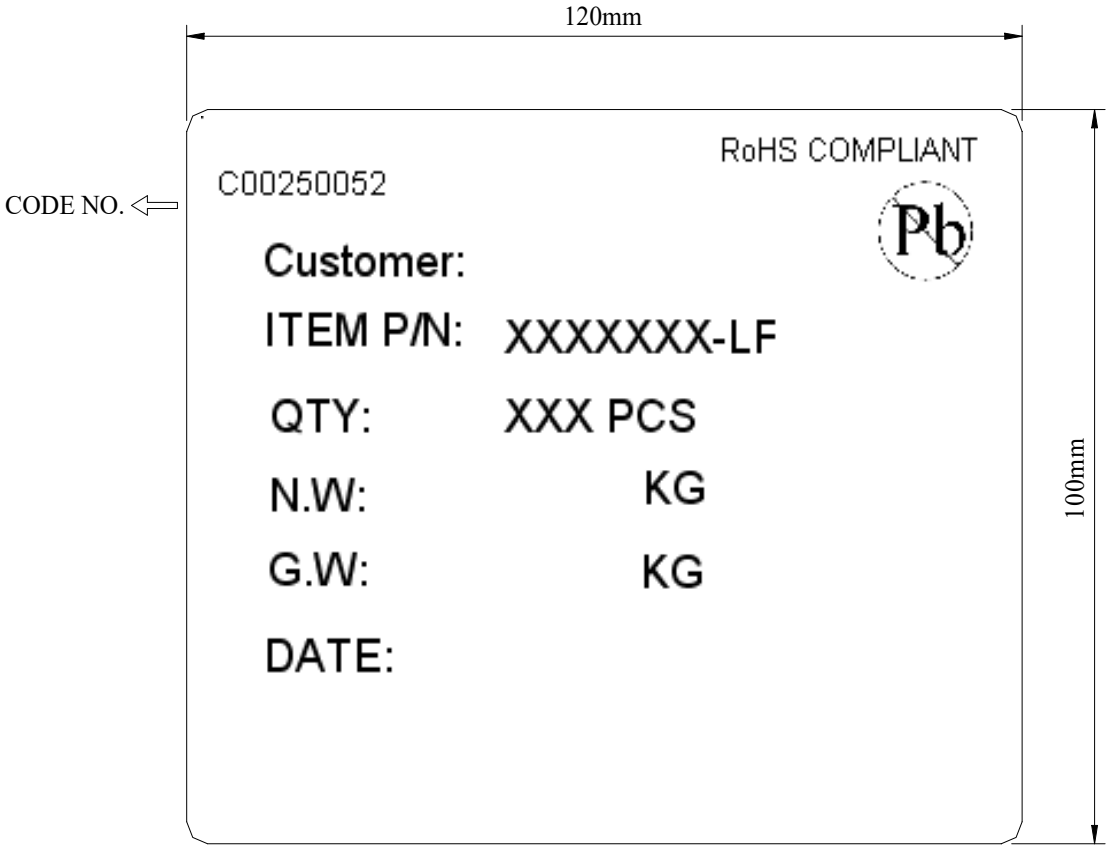
LABLE：



INNER BOX LABEL



OUT BOX LABEL