Radial Type Fixed Inductors



Low profile equipment choke or trap coil encapsulated in heat shrunk plastic housing

Part number: 8RB-875H-103K-LF



SPECIFICATION APPROVAL

CUSTOMER: BEC Distribution

PRODUCT: 8RB-875H-103K-LF

Pb-free

CODE NO. : C04708070

CUS. CODE:

SPEC.NO. : C-4708-070(00)

DATE : 23-Jan-17

CUSTOMER APPROVAL

BEC DISTRIBUTION Ltd.

www.bec.co.uk email: **sales@bec.co.uk** Phone: +44(0)1844 275824

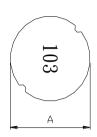
PREPARED BY	APPROVED BY	AUTHORIZED BY	
JEAN	TONY	MASCOT	

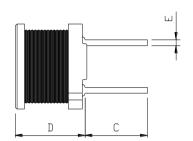


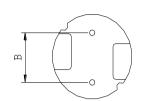
PRODUCT	8RB-875H-103K-LF	COIL	DATE	2017/1/23
SPEC.NO.	C-4708-070(00)	SPECIFICATION	CODE NO.	C04708070

EXTERNAL DIMENSIONS:









A : 8.3 Max. m/m
B : 5.0±0.5 m/m
C : 3.2±1.0 m/m
D : 7.5 Max. m/m
E : 0.65±0.1 m/m

ELECTRICAL CHARACTERISTIC:

L(mH): $10\pm10\%$ 1KHz/0.3V

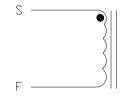
 $RDC(\Omega)$: 34.0 Max.

IDC(A) : 0.230 Max. (L0.23A MAX \ge 0Ax80%)

INDUCTANCE DROP: 20% MAX @ IDC 0.23 A

Operating Temperature Range : -40° C $\sim +85^{\circ}$ C

SCHEMATIC DRAWING:



 ϕ Ts(Ref.)

" • " START FOR STAND

MATERIAL LIST:

NO	ITEM	MATERIAL	SUPPLIER OF THE MATERIAL
1	CORE	F4D DR2W 7.8*7.3(SW) RCH B3.2F3.0 P5.0	
2	WIRE	ф0.07 UEF1/U(180°С)	
3	SOLDER	99.3Sn/0.7Cu	
4	FLUX	K8088	



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TEST DATA

	ELECTRICAL CHARACTERISTICS							
MEAS. ITEM	L(mH)	DCR(Ω)	IDC(A)					
TEST FREQ.	1KHz/0.3V	Max.	Max.					
YOUR			L(0.23A)					
SPEC.	10±10%	34	≥0Ax90%					
1	10.20	30.00	8.67					
2	10.20	29.70	8.87					
3	10.30	30.10	8.86					
4	10.20	30.50	8.77					
5	10.20	30.50	8.67					
6	10.10	30.20	8.69					
7	10.10	30.70	8.79					
8	10.20	31.00	8.67					
9	10.20	30.50	8.77					
10	10.10	30.50	8.65					
Х	10.180	30.370	8.741					
R	0.2	1.3	0.2					

	DIMENSION							
MEAS. ITEM	А	В	С	D	E			
TEST FREQ.	m/m	m/m	m/m	m/m	m/m			
YOUR								
SPEC.	8.3 Max.	5.0±0.5	3.2±1.0	7.5 Max.	0.65±0.1			
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
Х	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
R	0.00	0.00	0.00	0.00	0.00			



PRODUCT	8RB-875	H-103K-LF	COIL	DATE 2017/1/2			
SPEC.NO.	C-4708	3-070(00)	SPECIFICA	TION	CODE NO.	C04708070	
TEST ITI	EMS	SPE	CCIFICATIONS	TEST CONDITIONS / TEST METHODS			
ELECTRICAL PI	ERFORMA	NCE TEST					
L				CH-1061 OR	EQUIV.		
DCR				CH-502A OR	EQUIV		
RATED CURRENT		REFER TO STANDARD ELEC-TRICAL CHARACTERISTIC LIST.					
				1. APPLIED T	THE ALLOWED DC	CURRENT FOR 4 HOURS.	
TEMPERATURERIS	SE TEST	40°C MAX (△t)		2. TEMPERA	TURE MEASURE B	Y 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.			
<u>MECHANICAL I</u>	PERFORM.	ANCE TEST	-	1			
				PREHEAT:15	60°C 60SECS		
SOLDER HEAT RES	SISTANCE			SOLDER TEM 255±5°C	MPERATURE:	reheating Dipping Natural cooling	
			RS SHOULD HAVE NO	FLUX: ROXI	N 150°C	60	
		MICHANICA 2. INDUCTAL	NCE SHOULD NOT	DIP TIME:10±0.5SECS.			
		3. SOLDER N	RE THAN±10% MATERIAL WILL BE	1.AMPLITUE	DE: 1.5 mm		
VIBRATION TEST (LOW FREQUENCY)		LEAD FREE.		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.		



B-875H-103K-LF		COIL	DATE	2017/1/23
4708-070(00)	SPEC	CIFICATION	CODE NO.	C04708070
SPECIFICATIONS		TEST CONDITIONS / TEST METHODS		
ORMANCE TEST				
MORE THAN 90% OF TERMINAL ELECTRODE SHOULD BE COVERED WITH SOLDER.		BE DIPPEDIN A MELTED	SOLDER	Preheating Dipping Natural cooling 60 second 4 ±0.5 second
1.5Kg Min		THE DEVICE SHOULD BE REFLOW SOLDERED (255±5°C FOR 10 SECONDS) TO A TINNED COPPER SUBSTRATE. A DYNOMETER FORCE GAUGE SHOULD BE APPLIED TO THE SIDE OF THE COMPONENT. THE DEVICE MUST WITH- STAND A MINIMUM FORCE OF 1.5Kg WITHOUT AILURE OF THE TERMINATION . ATTACHED TO COMPONENT.		
1.5Kg Min		1.INSERT 10cm WIRE INTO THE REMAINING OPEN EYE BEND THE ENDS OF EVEN WIRE LENGTHS UPWARD AND WIND TOGETHER 2. TERMINAL SHALL NOT BEREMARKABLY DAMAGED		
		SUBSTRATE, DEND THE SUBSTRATE		[] 40mm
CASEDEFORMATIC CHANGE IN APPEA	ON, ARANCE OR	INDUCTERS SHALL WITH	ISTAND 6 MINTES (OF ALCOHOL
	MORE THAN 90% OTERMINAL ELECT SHOULD BE COVE SOLDER. 1.5Kg Min THE FORCES APPL SHOULD NOT DAN DIELECTRIC.	SPECIFICATIONS SPECIFICATIONS ORMANCE TEST MORE THAN 90% OF TERMINAL ELECTRODE SHOULD BE COVERED WITH SOLDER. 1.5Kg Min THE FORCES APPLIED SHOULD NOT DAMAGE THE	SPECIFICATION SPECIFICATION SPECIFICATIONS TEST COND MORE THAN 90% OF TERMINAL ELECTRODE SHOULD BE COVERED WITH SOLDER. THE DEVICE SHOULD BE SOLDERED (255±5°C FOR 5 SECONDS) TO A TINNED SUBSTRATE. A DYNOME GAUGE SHOULD BE APPI THE SIDE OF THE COMPODEVICE MUST WITH- STAMINIMUM FORCE OF 1.5% MINIMUM FORCE OF 1.5% MINIMUM FORCE OF 1.5% MINIMUM FORCE OF 1.5% MINIMUM FORCE OF 1.5% DEVICE MUST WITH- STAMINIMUM	AFTER FLUXING, INDUCTOR SHALL BE DIPPEDIN A MELTED SOLDER SHOULD BE COVERED WITH SOLDER. THE DEVICE SHOULD BE REFLOW SOLDERED (255±5°C FOR 10 SECONDS) TO A TINNED COPPER SUBSTRATE. A DYNOMETER FORCE GAUGE SHOULD BE APPLIED TO THE SIDE OF THE COMPONENT. THE DEVICE MUST WITH- STAND A MINIMUM FORCE OF 1.5Kg WITHOUT ALLURE OF THE TERMINATION. ATTACHED TO COMPONENT. LINSERT 10cm WIRE LINTO THE REMAINING OPEN EYE BEND THE TERMINATION. ATTACHED TO COMPONENT. LINSERT 10cm WIRE LENGTHS UPWARD AND WIND TOGETHER TERMINAL SHALL NOT BEREMARKABLY DAMAGED SOLDER A CHIP ON A TEST SUBSTRATE, BEND THE SUBSTRATE BY 2mm AND RETURN.



PRODUCT	8RB-875H-103K-LF	CO	OIL DATE 2017/1/2				
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TEST ITEMS SPECIFICATIONS			TEST CONDITIONS / TEST METHODS				
CLIMATIC TEST							
TEMPERATURE CHARACTERISTIC			- 40°C ~ +85°C				
HUMIDITY TEST			60°C±2°C / 96±2 HO	URS			
LOW TEMPERATURE STORAGE	1.APPEARANCE:NO 2.INDUCTANCE:W	1.APPEARANCE:NO DAMAGE 2.INDUCTANCE:WITHIN±10% OF INITIAL VALUE.		1.TEMPERATURE:- 25° C $\pm 2^{\circ}$ C 2.TIME: 96 ± 2 HOURS			
THERMAL SHOCK TEST	INITIAL VALUE.			125±5°C FOR 30 MINUTES. +80±5°C FOR 30 MINUTES. 2.TOTAL: 10 CYCLES 1Cycle Room temperature 30 min 30 m			
HIGH TEMPERATUI STORAGE	RE			1.APPLIED CURRENT: MAX RATED CURRENT 2.TEMPERATURE: $80^{\circ}\text{C} \pm 2^{\circ}\text{C}$			
NOTE : INDUCTORS	S ARE TO BE TESTED AF	TER 2 HOUR AT RO	OOM TEMPERATURE	i.			
LIFE TEST							
HIGH TEMPERATUI LOAD LIFE TEST	INDUCTORS SHOU	INDUCTORS SHOULD BE NO		1. TEMPERATURE: 80±2°C 2. TIME: 500±12 HOURS 3. LOAD: ALLOWED DC CURREN			
HUMIDITY LOAD L TEST	EVIDENCE OF SHO CIRCUIT	ORT OR OPEN	1. TEMPERATURE: 60±2°C 2. R.H.: 90-95% 3. TIME: 500±12 HOURS 4. LOAD: ALLOWED DC CURREN				
			1				

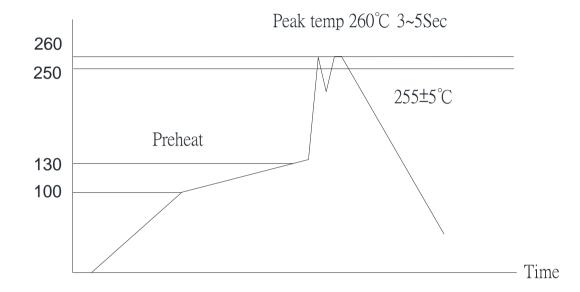




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SPEC.NO.	C-4708-070(00)	SPECIFICATION	CODE NO.	C04708070

RECOMMENDED SOLDERING CONDITIONS:

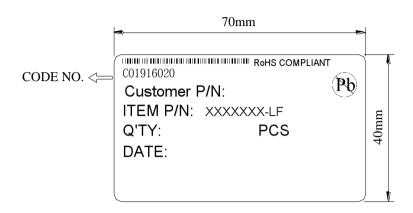
$Tempreture(^{\circ}C)$



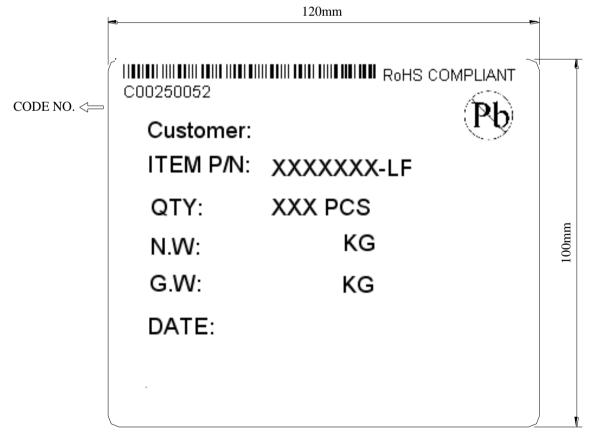


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SPEC.NO.	C-4708-070(00)	SPECIFICATION	CODE NO.	C04708070

LABLE:



INNER BOX LABEL



OUT BOX LABEL



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Cautions and Warnings:

- 1. All of the components are manufactured, designed, and promoted for applying in general electronics devices, for the specific area such as automotive, medical, military and aerospace except for general electronic devices, BEC Distribution must be asked for written approval before incorporating the components into these areas.
- 2. The components that will be used in high-reliability / high level of safety applications should be pre-evaluated by the end customer.

Especially in customer applications in which the malfunction or failure of an electronic component could endanger human life or health.

The customer shall be responsible for evaluating and confirming product is suitable for use in customer's applications.

- 3. Customer must be cautioned to verify that data sheets are the updated ones before placing orders. In the individual cases, any trouble or failure of electronic components happens during their long span cannot be eliminated even follow the instruction with existing technology.
- 4. Washing / Cleaning process may jeopardize the product and cause the defect. Washing agents may harm the long-term functionality of the product
- 5. The storage period should not be longer than 12 months (In the specific storage environment). The oxidization may happen on the terminals.

Hence all the products shall be used within 12 months after the shipping date. If the time is over 12 months, please check the solderability before use it.

- 6. Products should not be kept in unsuitable storage conditions, such as areas susceptible to high humidity, high temperatures, dust or corrosion.
- 7. Don't touch electrodes directly with bare hands as oil secretions may inhibit soldering. Always ensure optimum conditions for soldering.
- 8. Don't bend the terminals or subject them to excessive stress.
- 9. Please ensure that all terminals and case lugs are completely fixed with solder onto PCB
- 10. Ensure the tuning slug or cap is not fixed by solder flux during the production process.
- 11. Avoid placing coils near the edge of the PCB
- 12. Don't touch any exposed winding part and avoid coming into contact with the guide of the electrode in automatic mounting
- 13. The inductor / coil / common mode choke generates heat when current is applied. Please take care of this during the design.
- 14. Always handle the product with care to prevent the damage.
- 15. Our specification specifies the quality of the component as a single unit. Please ensure the component is thoroughly evaluated in your application circuit.

 Even for customized products, conclusive validation of the component in the circuit can only be carried out by customer.
- 16. The general testing condition is in the room temperature 25 +/- 5°C and humidity under 65% RH, which is applied to all products.
- 17. If have any query, please feel free to contact our sales department.