

TOKO 494HYF-0140K alternative



RDR1014HP-102K-CM

SPECIFICATION APPROVAL

CUSTOMER : BEC Distribution

PRODUCT : RDR1014HP-102K-CM

Pb-free

CODE NO. : C04710191

CUS. 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

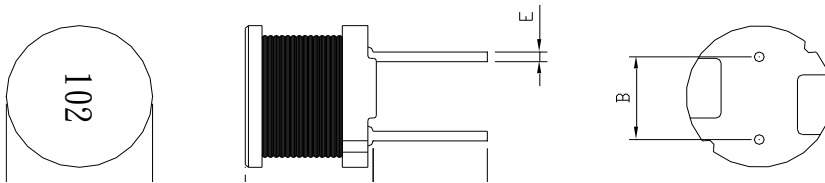
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EXTERNAL DIMENSIONS :

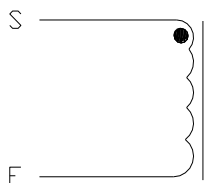


A	: 10.5 Max.	m/m
B	: 5.0±0.5	m/m
C	: 5.0±1.0	m/m
D	: 15.5 Max.	m/m
E	: 0.7 Ref.	m/m

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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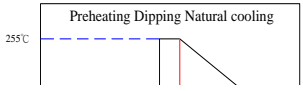
TEST DATA

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		
		SOLDER TEMPERATURE: 255 \pm 5°C		
		 <p>FLUX: ROXIN.. DIP TIME: 10\pm0.5SECS.</p>		
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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<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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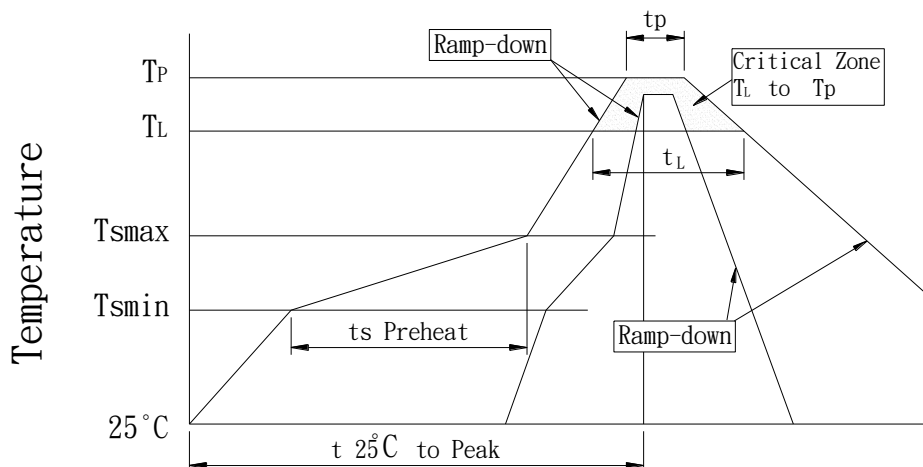
RECOMMENDED SOLDERING CONDITIONS :

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 ($T_{s_{min}}$)	100°C		150°C	
-Temperature Max ($T_{s_{max}}$)	150°C		200°C	
-Time (min to max) (t_s)	60-120 seconds		60-180 seconds	
$T_{s_{max}}$ 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 to top side of the package. Measured on the package body surface.

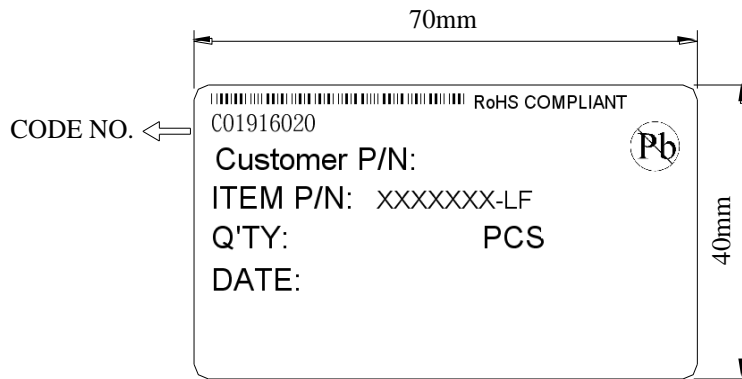
REFLOW SOLDERINGS



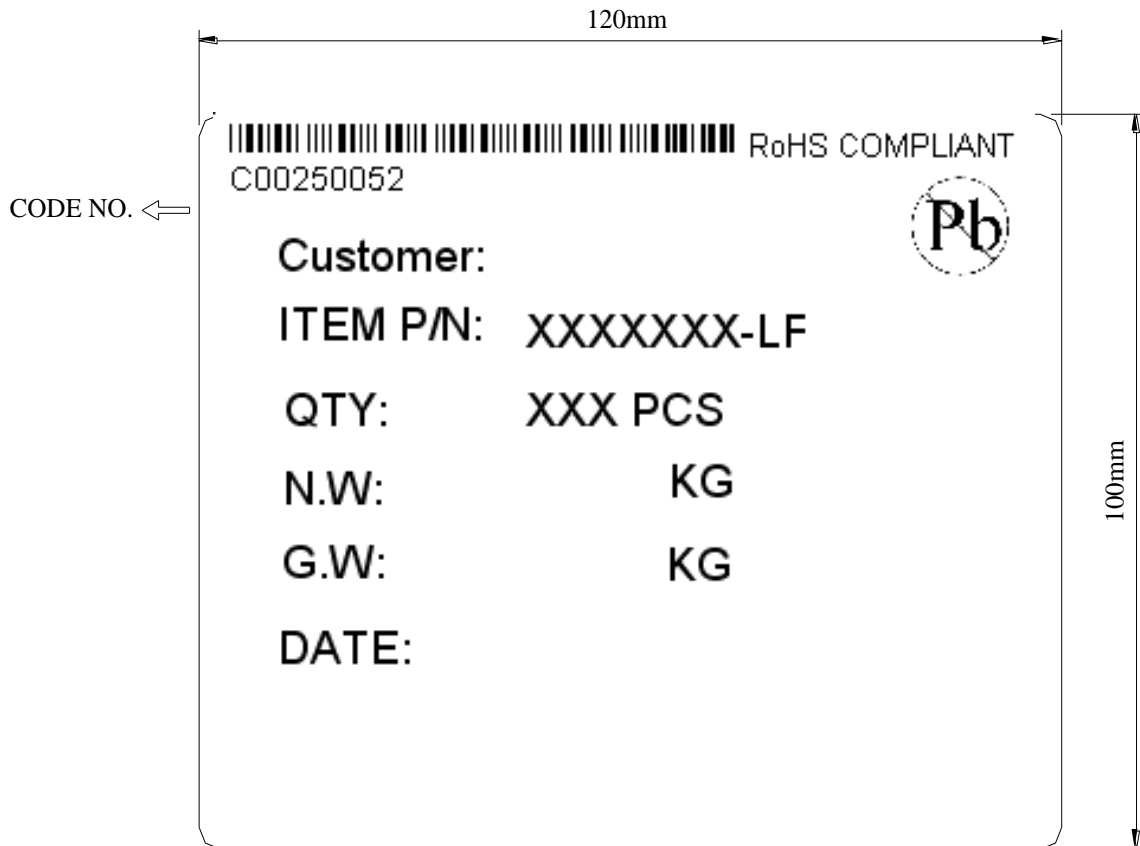
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TABLE :



INNER BOX LABEL



OUT BOX LABEL