

MURATA PLA10AN7420R8R2B alternative > CM-UU10.5LF-742-LF.

SPECIFICATION APPROVAL



RoHS Compliant

UK DIST : BEC Distribution

PRODUCT : CM-UU10.5LF-742-LF

Pb-free

CODE NO. : C05110046

CUS. CODE :

SPEC.NO. : C-5110-046(00)

DATE : 5-Aug-09

CUSTOMER APPROVAL

Distribution Partner: UK

BEC DISTRIBUTION Ltd.

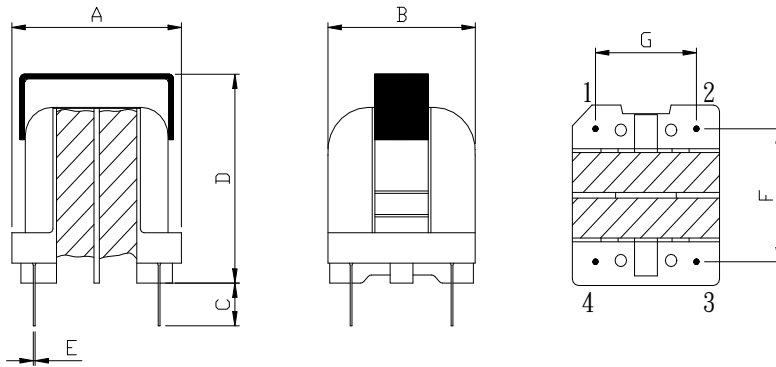
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PREPARED BY	APPROVED BY	AUTHORIZED BY
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PRODUCT	UU10.5LF-742-LF	COIL SPECIFICATION	DATE	2009/8/5
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EXTERNAL DIMENSIONS :

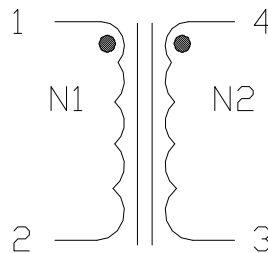


A	: 19.5 Max.	m/m
B	: 16.5 Max.	m/m
C	: 4.0±0.5	m/m
D	: 22 Max.	m/m
E	: 0.7 Ref.	m/m
F	: 13.0±0.5	m/m
G	: 10.0±0.5	m/m

ELECTRICAL CHARACTERISTIC :

L(mH) (1-2,4-3) :	7.4 Min.	1.0KHz 0.25V
DCR(mΩ) (1-2,4-3) :	500	Max.
IDC(A) :	0.7	Max.
Hipot : 1500V 5mA 1sec, winding to winding and Winding to cores.		
Rated Voltage(V) :	250V	
Insulation Resistance (ohm) :	100 Min.	

SCHEMATIC DRAWING :



MATERIAL LIST :

NO	ITEM	MATERIAL	SUPPLIER OF THE MATERIAL
1	BOBBIN	PM9820	
2	CORE	DMEGC /R10K	
3	CLIP	UU10.5	
4	WIRE	MW-75C	
5	VARNISH	BC-346A	
6	TAPE	PZ-280	

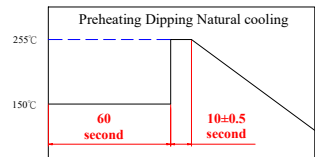
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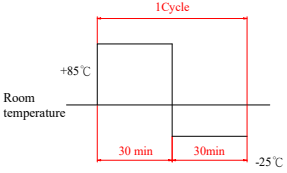
TEST DATA

ELECTRICAL CHARACTERISTICS								
MEAS. ITEM	L(mH) (1-2,4-3)	DCR(mΩ) (1-2,4-3)						
TEST FREQ.	1.0KHz 0.25V	500						
YOUR								
SPEC.	7.4 Min.	Max.						
1	15.60	345.00						
2	20.30	346.00						
3	16.90	346.00						
4	19.30	349.00						
5	20.30	349.00						
6								
7								
8								
9								
10								
X	18.480	347.00						
R	4.70	4.00						

DIMENSION								
MEAS. ITEM	A	B	C	D	E	F	G	
TEST FREQ.	m/m	m/m	m/m	m/m	m/m	m/m	m/m	
YOUR								
SPEC.	19.5 Max.	16.5 Max.	4.0±0.5	22 Max.	0.7 Ref.	13.0±0.5	10.0±0.5	
1	17.90	16.40	4.10	21.80				
2	18.00	16.40	4.10	21.80				
3	18.10	16.50	4.10	21.90				
4	18.00	16.40	4.00	21.90				
5	18.00	16.40	4.10	21.80				
6								
7								
8								
9								
10								
X	18.000	16.420	4.080	21.840	#DIV/0!	#DIV/0!	#DIV/0!	
R	0.20	0.10	0.10	0.10	0.00	0.00	0.00	

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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 25% 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 60 SECS		
VIBRATION TEST (LOW FREQUENCY)		SOLDER TEMPERATURE: 255 \pm 5°C		
		FLUX: ROXIN.. DIP TIME: 10 \pm 0.5 SECS.		
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.APEARANCE:NO DAMAGE 2.INDUCTANCE:WITHIN±10% OF INITIAL VALUE.	- 40°C ~ +85°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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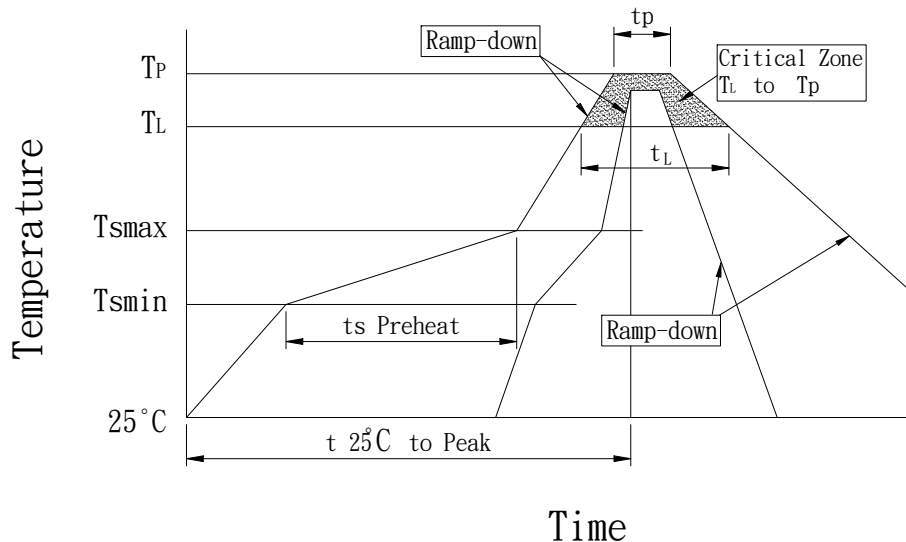
RECOMMENDED SOLDERING CONDITIONS :

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 Min ($T_{S_{max}}$)	150°C		200°C	
-Time (min to max) (ts)	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.	

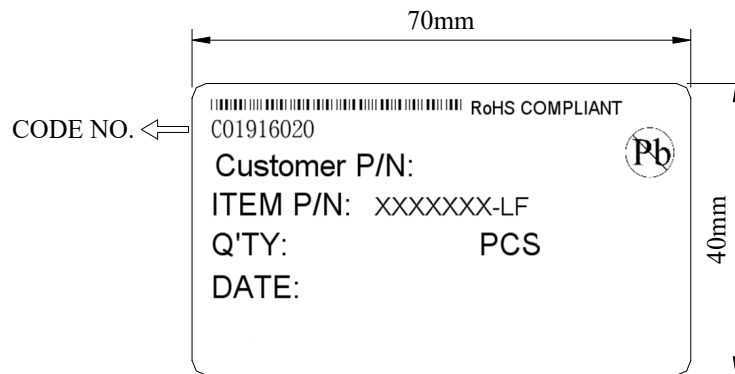
Note : All temperatures refer to top side of the package. Measured on the package body surface.

REFLOW SOLDERINGS

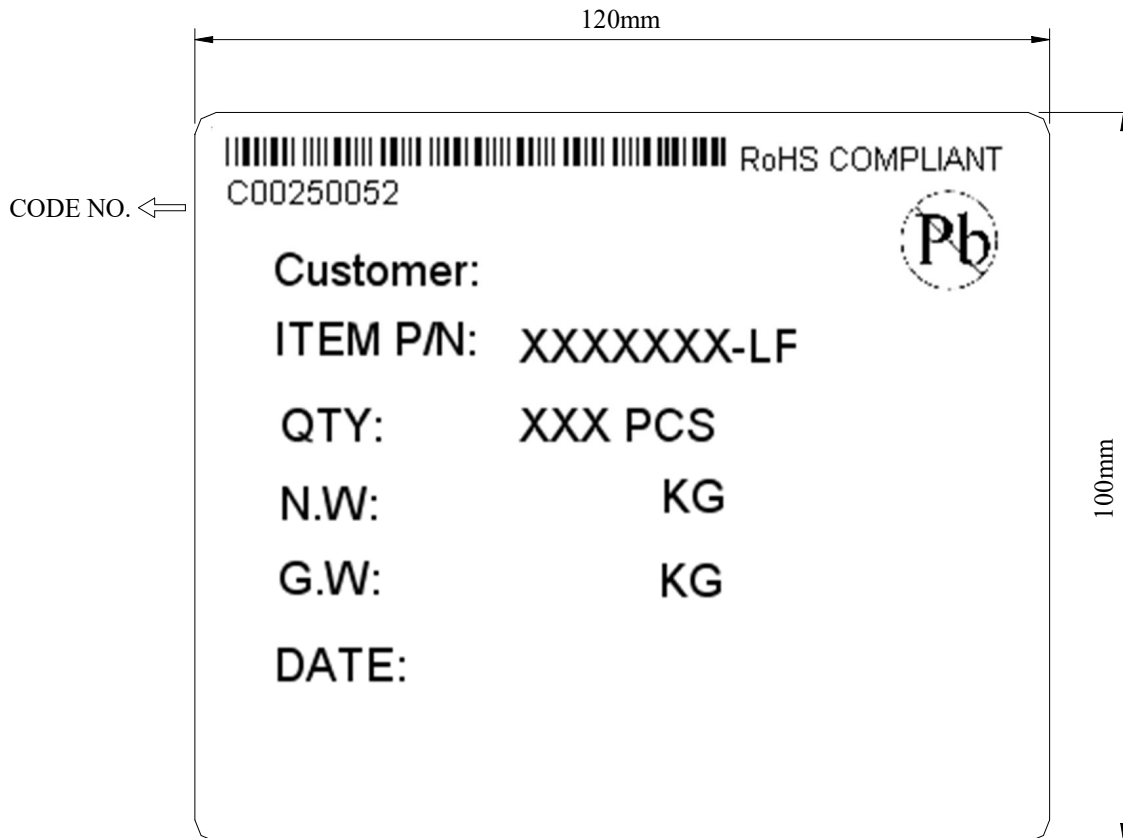


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TABLE :



INNER BOX LABEL



OUT BOX LABEL