1. Features

- Low profile and low DCR.
- Shielded construction.
- handles high transient current spikes without saturation
- frequency up to 3MHz
- Ultra Low buzz noise, due to composite construction
- 100% lead (Pb) free meet RoHS standard

2. Applications

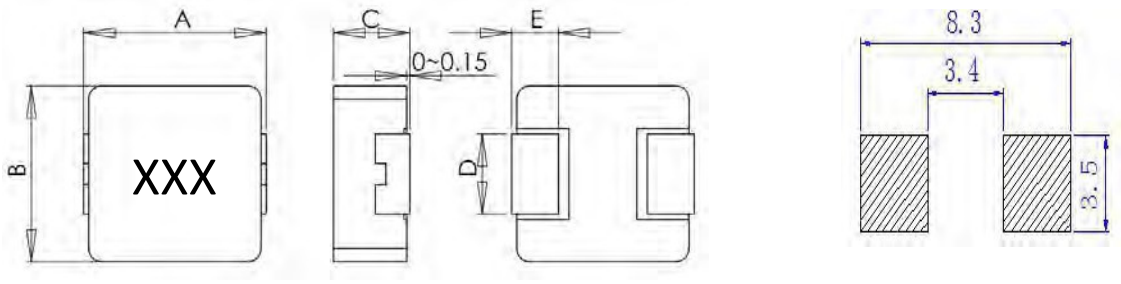
- PDA/Notebook/Desktop, and server applications.
- Low profile,high current power supplies.
- Battery powered devices.
- DC/DC converters.

3. Product Identification

MJC– 0630C – 1R0 – M

- M: Inductance Tolerance (K:10% ; M:20% ; N:30%)
- 1R0: Inductance Value 1R0:1.0uH;
- 0630C: Product dimensions
- MJC: Series name

4. Shapes And Dimensions



ITEM	A	B	C	D	E
SPEC	7.0±0.5	6.6±0.2	3.0 MAX	3.0±0.3	1.6±0.3

5. Electrical Charicteristics

Part number	Inductance (uH)	Rdc (mΩ)		Heat Rating Current DC Amps. Idc (A)	Saturation Current DC Amps. Isat (A)
	100KHz/0.25V	Typical	Max	Max	Max
MJC-0630C-R10-M	0.10±20%	1.50	1.70	32.50	60.00
MJC-0630C-R15-M	0.15±20%	1.90	2.50	30.00	40.00
MJC-0630C-R22-M	0.22±20%	2.50	3.00	21.00	34.00
MJC-0630C-R33-M	0.33±20%	3.00	3.50	21.00	25.00
MJC-0630C-R47-M	0.47±20%	3.50	4.10	18.00	20.00
MJC-0630C-R56-M	0.56±20%	4.25	4.90	15.00	18.00
MJC-0630C-R68-M	0.68±20%	5.00	5.70	14.00	17.00
MJC-0630C-R82-M	0.82±20%	6.00	6.90	12.00	16.00
MJC-0630C-1R0-M	1.00±20%	7.00	7.50	11.00	15.00
MJC-0630C-1R2-M	1.20±20%	8.00	10.50	10.00	14.00
MJC-0630C-1R5-M	1.50±20%	10.60	12.10	9.00	14.00
MJC-0630C-2R2-M	2.20±20%	15.50	17.50	7.00	10.00
MJC-0630C-3R3-M	3.30±20%	23.00	26.00	6.00	9.50
MJC-0630C-4R7-M	4.70±20%	34.50	38.00	5.50	6.50
MJC-0630C-5R6-M	5.60±20%	36.00	42.00	5.00	6.25
MJC-0630C-6R8-M	6.80±20%	43.00	50.00	5.00	6.00
MJC-0630C-8R2-M	8.20±20%	58.50	65.00	4.50	6.00
MJC-0630C-100-M	10.00±20%	64.00	68.00	4.50	5.50
MJC-0630C-120-M	12.00±20%	85.00	98.00	3.50	5.00
MJC-0630C-150-M	15.00±20%	98.00	115.0	3.00	4.50
MJC-0630C-220-M	22.00±20%	135.0	165.0	2.30	3.10
MJC-0630C-330-M	33.00±20%	225.0	257.0	2.00	2.50
MJC-0630C-390-M	39.0±20%	270.0	310.0	1.80	2.20
MJC-0630C-470-M	47.0±20%	328.0	350.0	1.50	2.00

(1) All test data is referenced to 25℃ ambient .

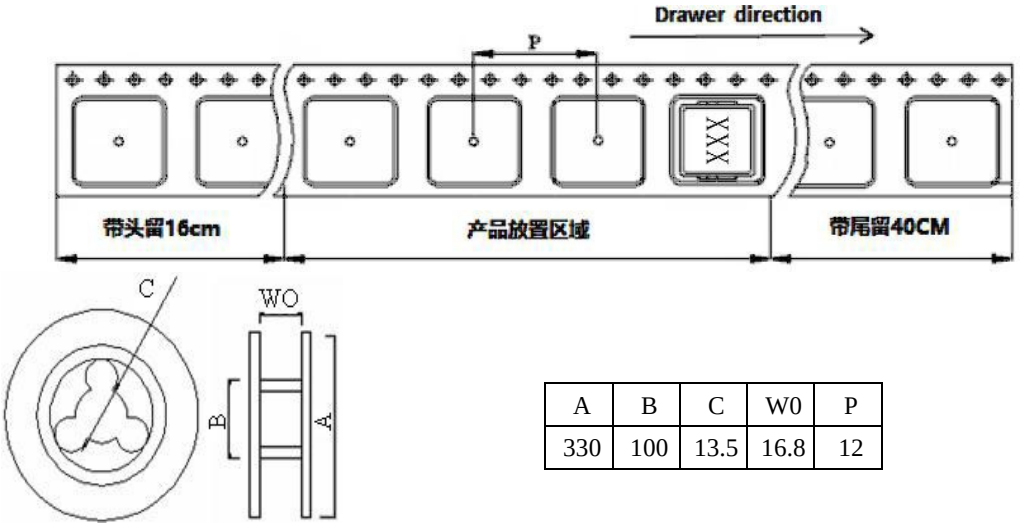
(2) When applying the heat rating current DC（Idc) to coil, it will cause an approximate △T of 40℃.

(3) When applying the saturation current DC(Isat) to coil, it will cause the initial inductance valuel to drop 30%Typical.

(4) Operating Temperature Range-40℃ to +125℃

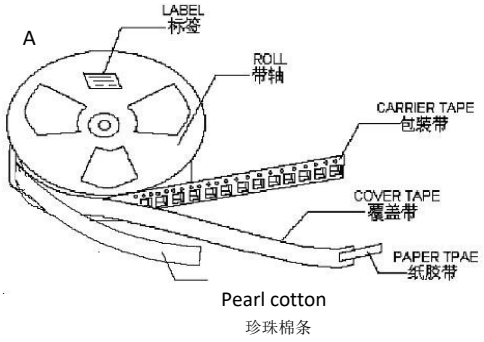
6. Packaging Information

(1) Tape&Reel Dimension



A	B	C	W0	P
330	100	13.5	16.8	12

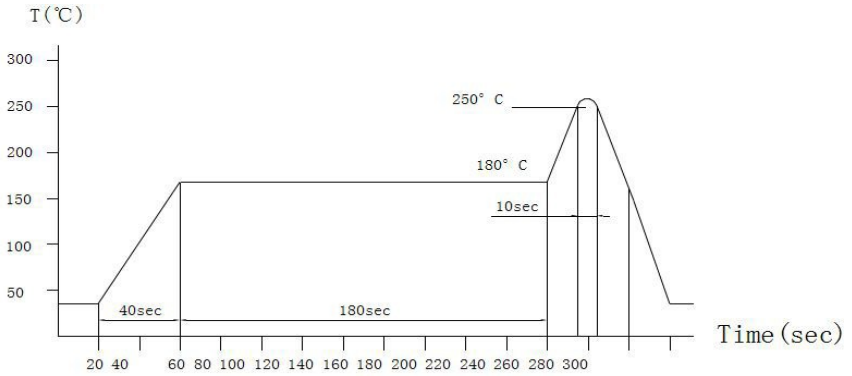
(2) The packing way and quantity



1500 pcs/Reel

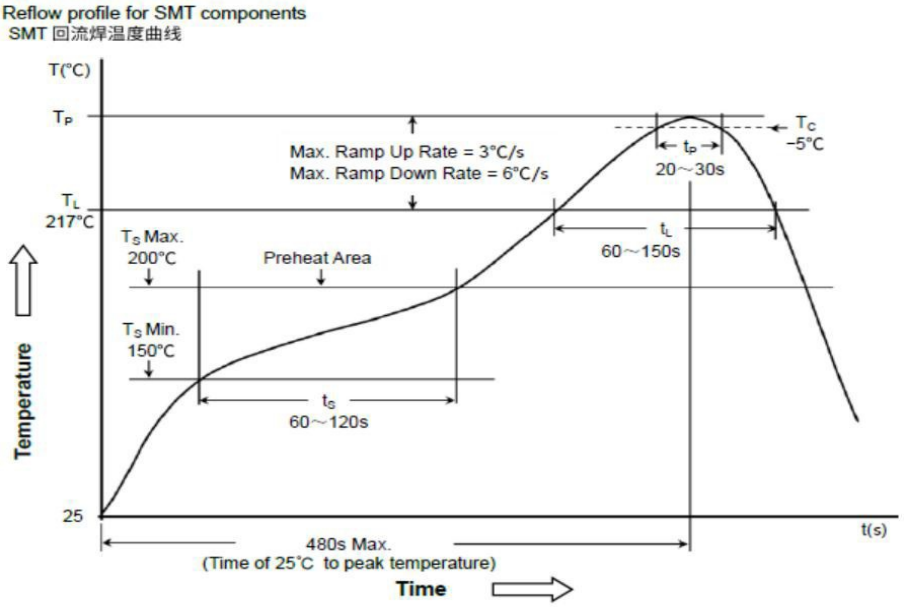
7. Soldering and Mounting

(1).Recommended Reflow Conditions（Lead-free）



The above recommended reflow test conditions are based on the company's reflow welding equipment

(2). Reflow Soldering Heat Endurance



Classification of peak package body temperature (T_P)
封装体峰值温度(T_P)分类

	Package Thickness 封装厚度	Package Volume 封装体积		
		<350 mm³	350~2000 mm³	>2000 mm³
PB-Free Assembly 无铅装配	<1.6mm	260°C	260°C	260°C
	1.6~2.5mm	260°C	250°C	245°C
	≥2.5mm	250°C	245°C	245°C

a. Reflow soldering is carried out under this condition and placed under normal temperature and humidity conditions

b. Twice reflow test is acceptable with the test interval remaining 1 hour under the normal conditions.

c. The reflow test profile may vary with the testing instruments.

8. Reliability Test

Item	Performance	Test Condition
Solder Ability Test	More than 90% of terminal electrode should be covered with solder.	Terminal in flux and then into 245 + 5 ℃ tin furnace 5 seconds
Terminal Strength	the terminal should not peel off	After soldering between copper plate and electrode. sample is pushed in three directions of X,Y and Z with force of 5N(0.5kgf) for 10±5 seconds
Vibration	1. No separation or indication of electrode. 2. No case deformation or change in appearance.	Inductance deviation within +10% after vibration for 1 hour. In each of three orientations at Sweep vibration (10~55~10HZ) with 1.5mmP-P amplitudes.
Drop Test	1.The inductance deviation is within +10%. 2.No case deformation or change in appearance.	981m/s2 (100G) is used to automatically drop the product at a height of 1 meter after packaging. and there are three different directions
High Temperature Storage Test	1.No case deformation or change in appearance 2.△L/L≦10% 3.△DCR/DCR≦10%	Temperature:125℃±3℃ Time:500±2 hours. Tested not less than 1 hour, nor more than 2 hours at room
Low Temperature Storage Test	1.No case deformation or change in appearance 2.△L/L≦10% 3.△DCR/DCR≦10%	Temperature:-40℃±3℃ Time:500±2 hours. Tested not less than 1 hour, nor more than 2 hours at room.
High Temperature Humidity Test	1.No case deformation or change in appearance 2.△L/L≦10% 3.△Q/Q≦30% 4.△DCR/DCR≦10%	Temperature:85℃±3℃. Humidity:85±5%RH Test Time:500±2 hours Tested not less than 1 hour. Nor more than 2 hours at room temperature
Thermal Shock Test Storage Test	1.No case deformation or change in appearance 2.△L/L≦10% 3.△DCR/DCR≦10%	First–40℃ for 30 Minutes, last 125℃ for 30 Minutes as 1 cycle. Go through 20 cycles.

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