

Multilayer Chip Beads(SMD Array)

For signal line

MZA series

Type:	MZA1210	[0504 inch]* (2 lines)
	MZA2010	[0804 inch] (4 lines)
		* Dimensions Code JIS[EIA]

Issue date: May 2011

- All specifications are subject to change without notice.
 - Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.
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Chip Beads(SMD Array) For General Signal Line

Conformity to RoHS Directive

MZA Series MZA1210 Type

FEATURES

- A single MZA series chip provides noise attenuation for two lines, making it ideal for use with I/O lines of various highly miniaturized.
- Electronic equipment, such as portable products, which comprise high density circuitry.
- Low crosstalk between adjacent circuits.
- Internal electrodes feature low DC resistance, minimizing wasteful power consumption.
- Electroplated terminal electrodes accommodate reflow soldering.
- Monolithic structure ensures high reliability.
- The products contain no lead and also support lead-free soldering.
- It is a product conforming to RoHS directive.

APPLICATIONS

Removal of signal line noises of cellular phones, PCs, note PCs, TVs, DVDs, DSCs, game machines, digital photo frames, PNDs, etc.

PRODUCT IDENTIFICATION

MZA	1210	D	121	C	T
(1)	(2)	(3)	(4)	(5)	(6)

- (1) Series name
- (2) Dimensions L×W
- (3) Material code
- (4) Nominal impedance
121:120Ω at 100MHz
- (5) Characteristic type
- (6) Packaging style
T:Taping

HANDLING AND PRECAUTIONS

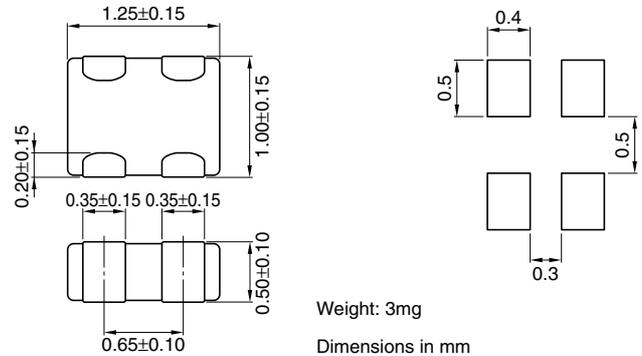
- Before soldering, be sure to preheat components. The preheating temperature should be set so that the temperature difference between the solder temperature and product temperature does not exceed 150°C.
- After mounting components onto the printed circuit board, do not apply stress through board bending or mishandling.
- Do not expose the inductors to stray magnetic fields.
- Avoid static electricity discharge during handling.
- When hand soldering, apply the soldering iron to the printed circuit board only. Temperature of the iron tip should not exceed 350°C. Soldering time should not exceed 3 seconds.
- This product does not apply to flow soldering construction method.

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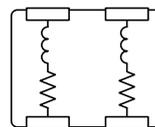
• Please contact our Sales office when your application is considered the following:
The device's failure or malfunction may directly endanger human life (e.g. application for automobile/aircraft/medical/nuclear power devices, etc.)

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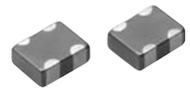
SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN



CIRCUIT DIAGRAM



• No polarity



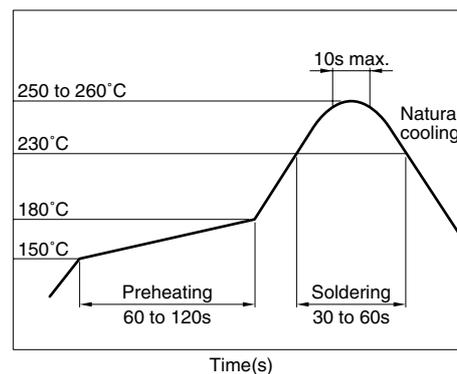
TEMPERATURE RANGES

Operating/storage	-55 to +125°C
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PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	5000 pieces/reel

RECOMMENDED SOLDERING CONDITION REFLOW SOLDERING



ELECTRICAL CHARACTERISTICS

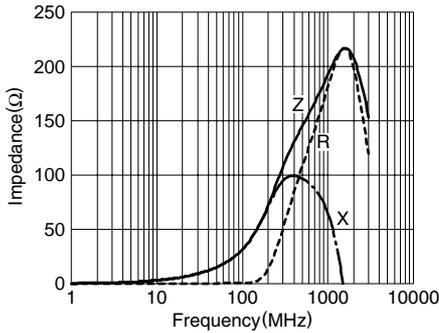
Part No.	Impedance (Ω)[100MHz]*	DC resistance (Ω)max.	Rated current (mA)max.	Rated voltage (V)max.
MZA1210D330C	33 \pm 25%	0.30	50	5
MZA1210D680C	68 \pm 25%	0.50	50	5
MZA1210D121C	120 \pm 25%	0.80	50	5
MZA1210D241C	240 \pm 25%	1.20	50	5

* Test equipment: E4991A or equivalent
 Test tool: 16192A or equivalent
 Test temperature: 25 \pm 10°C

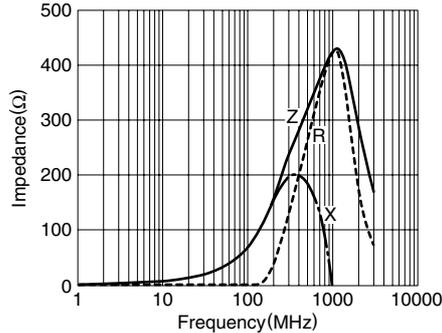
TYPICAL ELECTRICAL CHARACTERISTICS

Z, X, R vs. FREQUENCY CHARACTERISTICS

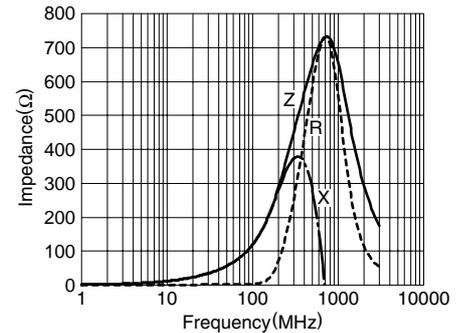
MZA1210D330C



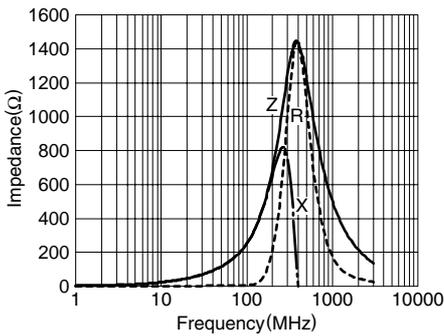
MZA1210D680C



MZA1210D121C

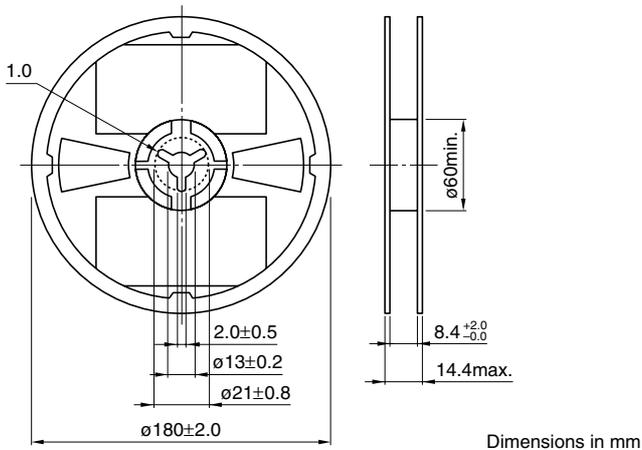


MZA1210D241C



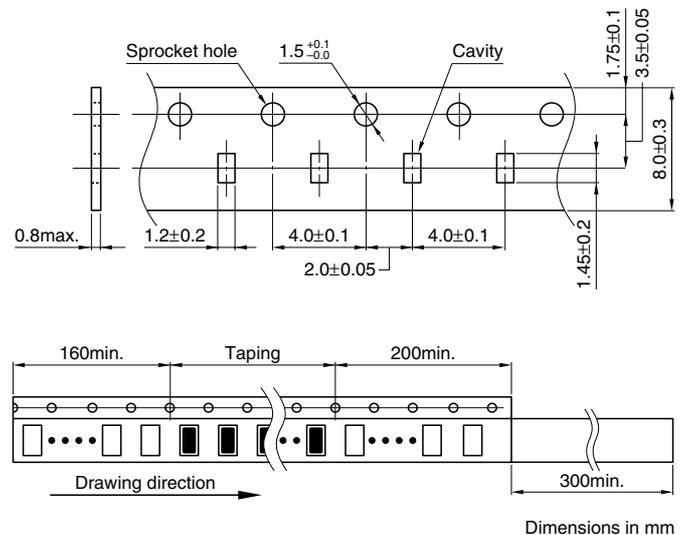
PACKAGING STYLES

REEL DIMENSIONS



Dimensions in mm

TAPE DIMENSIONS



Dimensions in mm

• All specifications are subject to change without notice.

Chip Beads(SMD Array) For General Signal Line

Conformity to RoHS Directive

MZA Series MZA2010 Type

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- (2) Dimensions L×W
- (3) Material code
- (4) Nominal impedance
121:120Ω at 100MHz
- (5) Characteristic type
- (6) Packaging style
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MATERIAL CHARACTERISTICS

B material: This type is perfectly suited for fast digital signals. By equalizing R components and X components that beads possess at a frequency of 5MHz, it is able to suppress overshooting, undershooting and ringing of fast digital signals.

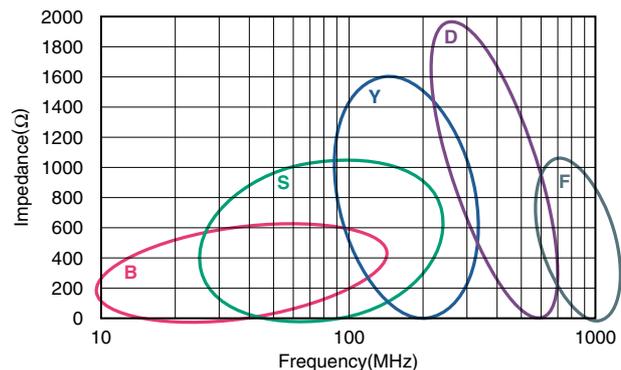
S material: Standard type that features impedance characteristics similar to those of a typical ferrite core.
For signal line applications in which the blocking region is near 100MHz. Impedance values selected for effectiveness at 40 to 300MHz.

Y material: High frequency range type intended for the 100MHz region and above.
For signal line applications in which the signal frequency is far from the cutoff frequency. Impedance values selected for effectiveness at 80 to 400MHz.

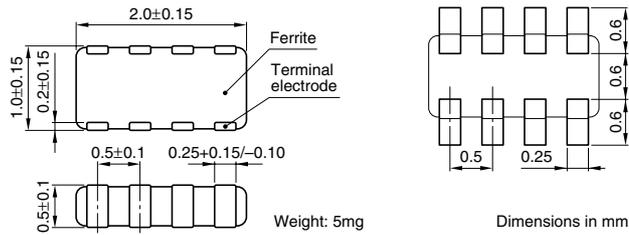
D material: For applications calling for low insertion loss at low frequencies and sharply increasing impedance at high frequencies. Designed for high impedance at high frequencies (300MHz to 1GHz) for signal line applications.

F material: This new product inherits the characteristic of our D-material, namely its sharp impedance rise time, and its impedance peak frequency has been shifted higher into range. The product offers excellent noise suppression from 600MHz to as high as in the GHz range.

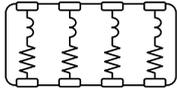
TYPICAL MATERIAL CHARACTERISTICS



SHAPES AND DIMENSIONS/RECOMMENDED PC BOARD PATTERN



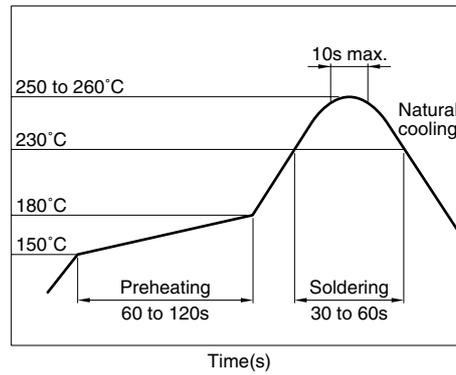
CIRCUIT DIAGRAM



• No polarity



RECOMMENDED SOLDERING CONDITION REFLOW SOLDERING



TEMPERATURE RANGES

Operating/storage -55 to $+125^\circ\text{C}$

PACKAGING STYLE AND QUANTITIES

Packaging style Quantity
Taping 5000 pieces/reel

ELECTRICAL CHARACTERISTICS

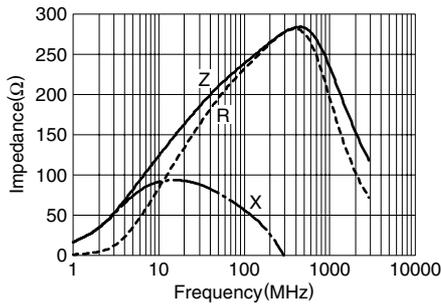
Part No.	Impedance (Ω)[100MHz]*	DC resistance (Ω)max.	Rated current (mA)max.	Rated voltage (V)max.
MZA2010B241C	$240 \pm 25\%$	0.45	100	5
MZA2010S800C	$80 \pm 25\%$	0.22	100	5
MZA2010S121C	$120 \pm 25\%$	0.25	100	5
MZA2010S241C	$240 \pm 25\%$	0.35	100	5
MZA2010S601C	$600 \pm 25\%$	0.50	100	5
MZA2010S102C	$1000 \pm 25\%$	0.75	100	5
MZA2010Y800C	$80 \pm 25\%$	0.30	100	5
MZA2010Y121C	$120 \pm 25\%$	0.40	100	5
MZA2010Y241C	$240 \pm 25\%$	0.60	100	5
MZA2010Y601C	$600 \pm 25\%$	0.80	100	5
MZA2010Y102C	$1000 \pm 25\%$	1.00	100	5
MZA2010D330C	$33 \pm 25\%$	0.30	50	5
MZA2010D680C	$68 \pm 25\%$	0.50	50	5
MZA2010D121C	$120 \pm 25\%$	0.80	50	5
MZA2010D241C	$240 \pm 25\%$	1.20	50	5
MZA2010F330C	$33 \pm 25\%$	0.60	100	5
MZA2010F470C	$47 \pm 25\%$	0.80	100	5
MZA2010F560C	$56 \pm 25\%$	0.80	100	5

* Test equipment: E4991A or equivalent
Test tool: 16192A or equivalent
Test temperature: $25 \pm 10^\circ\text{C}$

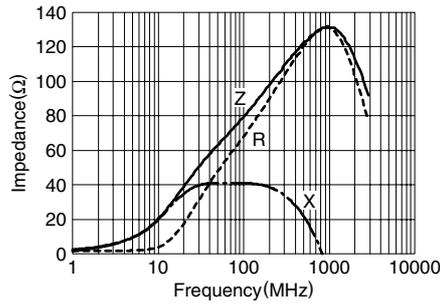
TYPICAL ELECTRICAL CHARACTERISTICS

Z, X, R vs. FREQUENCY CHARACTERISTICS

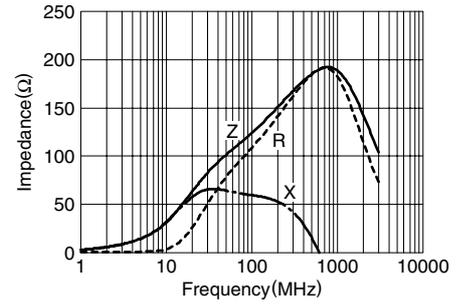
MZA2010B241C



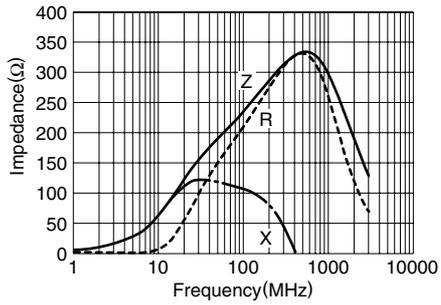
MZA2010S800C



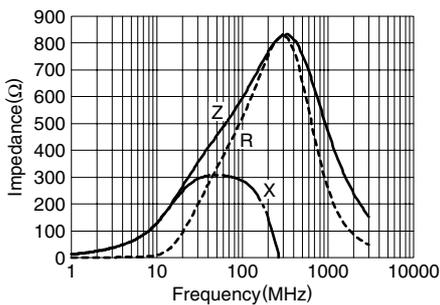
MZA2010S121C



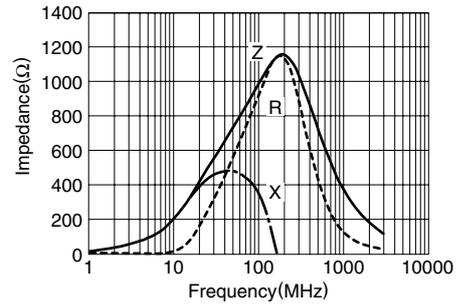
MZA2010S241C



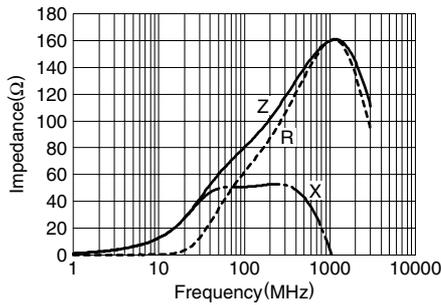
MZA2010S601C



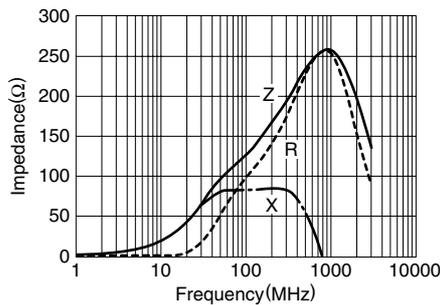
MZA2010S102C



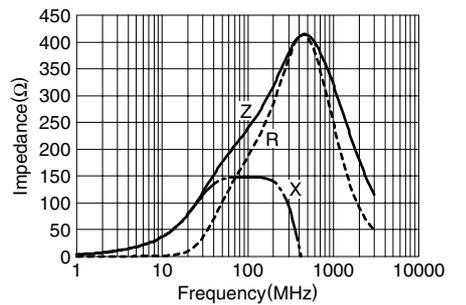
MZA2010Y800C



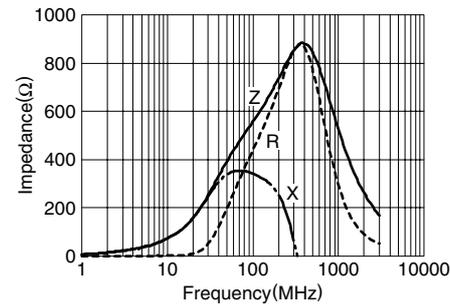
MZA2010Y121C



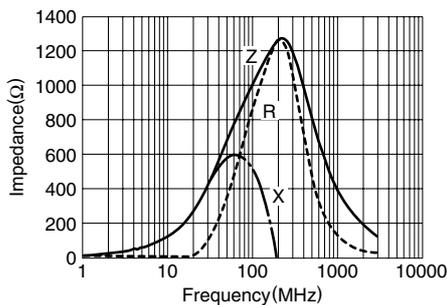
MZA2010Y241C



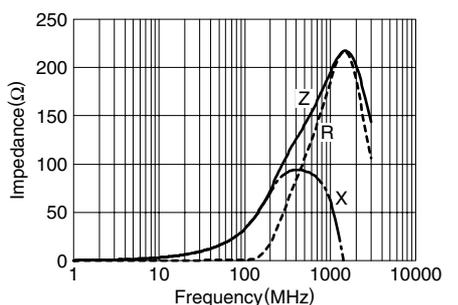
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MZA2010Y102C



MZA2010D330C

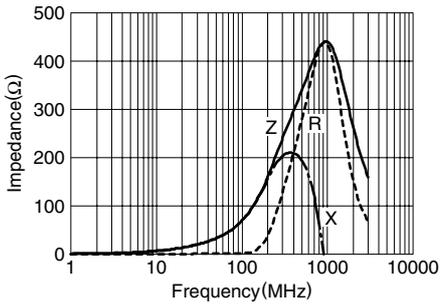


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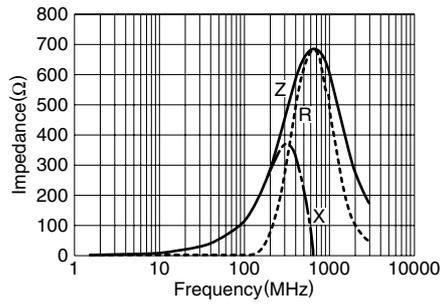
TYPICAL ELECTRICAL CHARACTERISTICS

Z, X, R vs. FREQUENCY CHARACTERISTICS

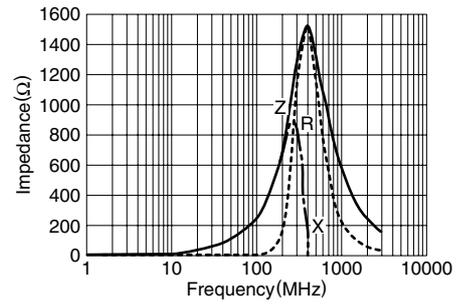
MZA2010D680C



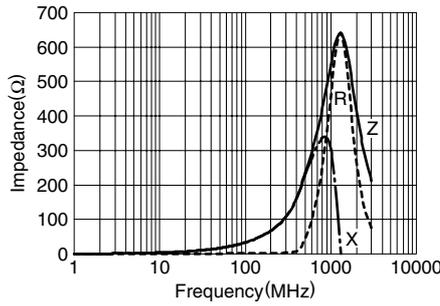
MZA2010D121C



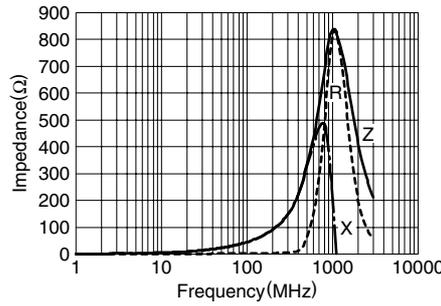
MZA2010D241C



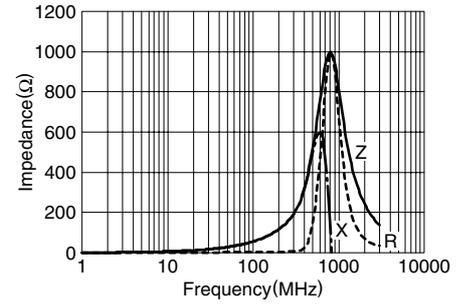
MZA2010F330C



MZA2010F470C

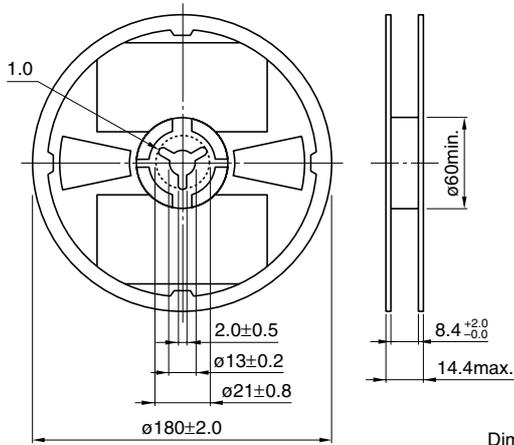


MZA2010F560C



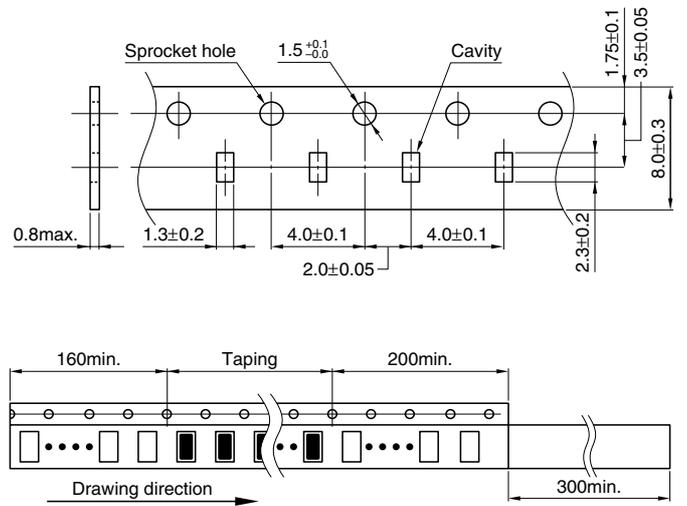
PACKAGING STYLES

REEL DIMENSIONS



Dimensions in mm

TAPE DIMENSIONS



Dimensions in mm

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