

32.768kHz SMD LOW PROFILE CRYSTAL

ABS05

1.6 x 1.0 x 0.5mm

ABS05



RoHS
Compliant

FEATURES:

- Smallest 32.768KHz package available
- 0.5mm height ideal for high density circuit boards
- Ceramic package offers excellent environmental & heat resistance
- Extended temperature -40°C to +85°C for industrial applications

APPLICATIONS:

- Wide range in communication & measuring equipment
- Commercial & Industrial applications
- Automotive electronics applications
- Wireless communications
- PDA and Palm Pilots

STANDARD SPECIFICATIONS:

Parameters	Minimum	Typical	Maximum	Units	Notes
Frequency		32.768		kHz	
Operation Mode	Flexural Mode (Tuning Fork)				
Operating Temperature	-40	-----	+85	°C	
Storage Temperature	-55	-----	+125	°C	
Frequency Tolerance @+25°C	-20	-----	+20	ppm	See options
Temperature Coefficient:	-0.04	-0.03	-0.02	ppm/T ²	
Turn-over temperature:	+20	+25	+30	°C	
Equivalent series resistance (ESR)	-----	-----	90	kΩ	
Load capacitance	-----	12.5	-----	pF	See options
Drive Level	-----	-----	0.5	μW	

OPTIONS AND PART IDENTIFICATION:

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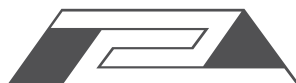
ABS05 – 32.768 kHz - □ - □ - □

Load Capacitance
Blank: 12.5pF
9: 9pF

Frequency Tolerance
Blank: ±20ppm
1: ±10ppm
4: ±30ppm

Packaging
Blank: Bulk
T: Tape & Reel (3000pcs/reel)

Contact Abracon for non- standard capacitance



32.768kHz SMD LOW PROFILE CRYSTAL

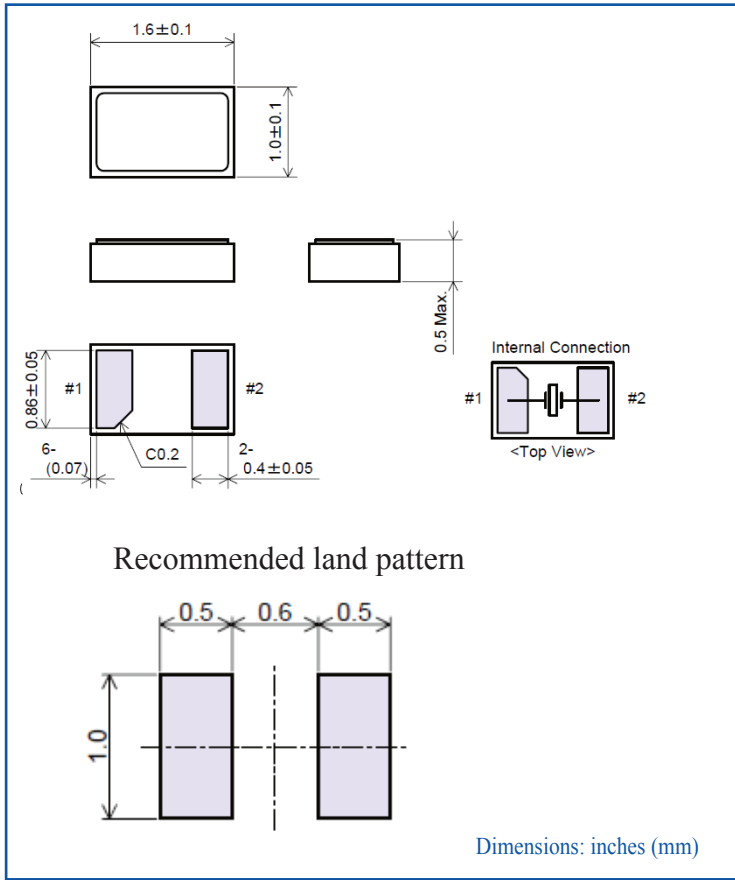
ABS05

1.6 x 1.0 x 0.5mm

ABS05

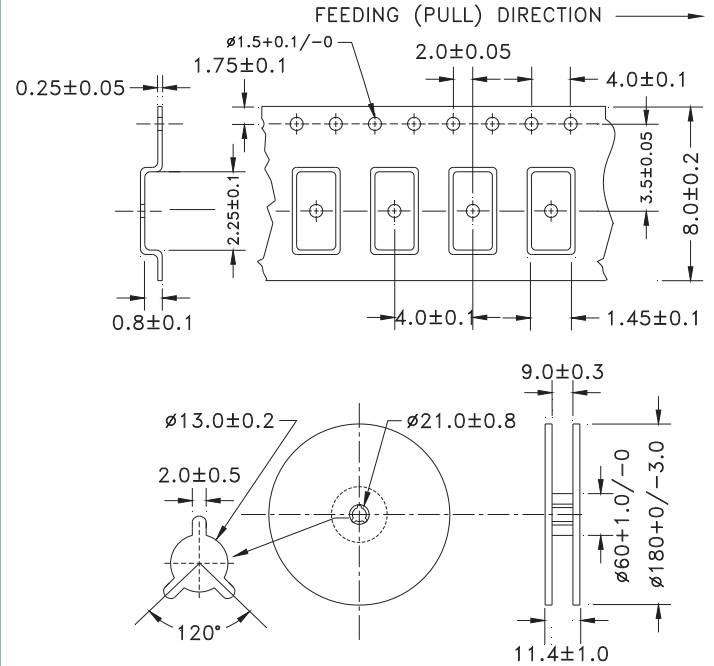


OUTLINE DRAWING:

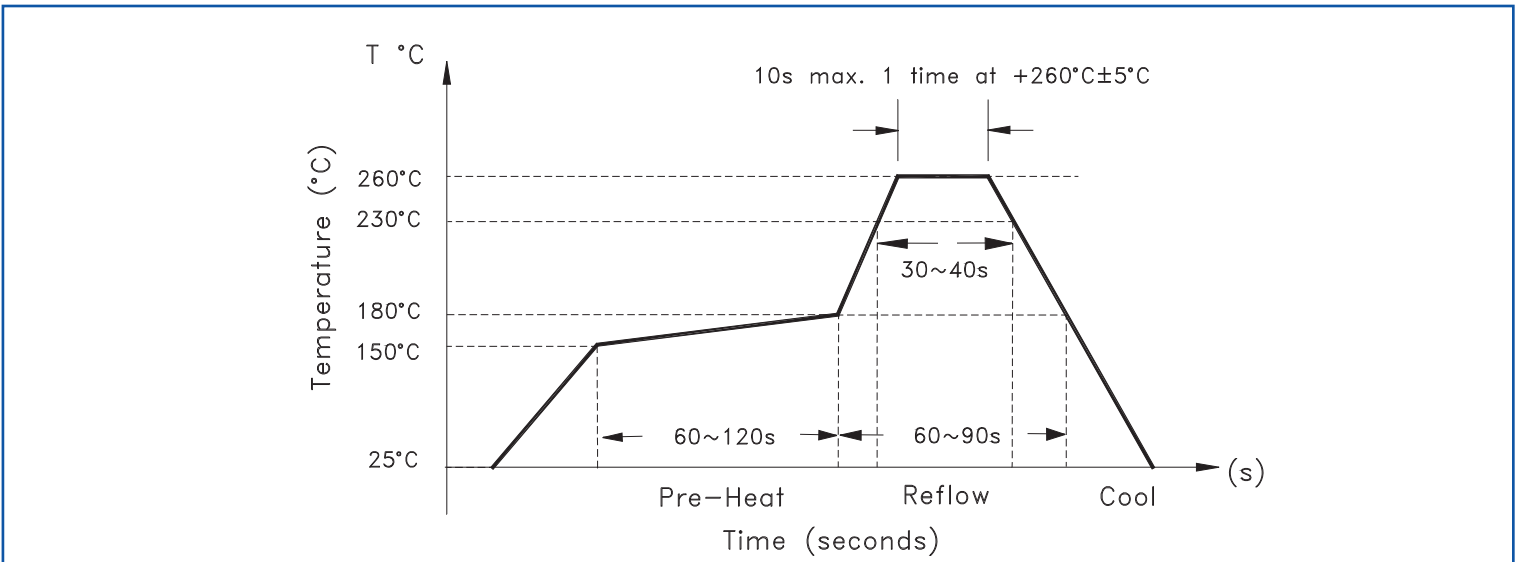


TAPE & REEL:

T=Tape and reel (3,000pcs/reel)



REFLOW PROFILE:



Need a test socket for the ABS05 Series? To view compatible **PRECISION TEST & BURN-IN SOCKETS** for these parts, [click here](#). P/N AXS-2012-02-04

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Revised: 08.13.12

32.768kHz SMD LOW PROFILE CRYSTAL

ABS06L



ABS06L



RoHS
Compliant

2.0 x 1.2 x 0.38mm

FEATURES:

- Lowest height kHz package for 32.768kHz Crystals
- 0.38mm height ideal for high density circuit boards
- Ceramic package offers excellent environmental & heat resistance
- Extended temperature -40°C to +85°C for industrial applications

APPLICATIONS:

- Wide range in communication & measuring equipment
- Commercial & Industrial applications
- Automotive electronics applications
- Wireless communications
- PDA and Palm Pilots
- Credit Cards with Security Technology

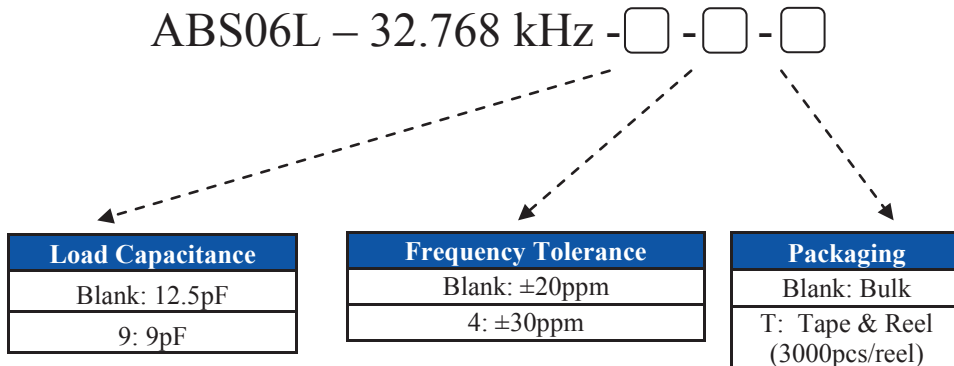
STANDARD SPECIFICATIONS:

Parameters	Minimum	Typical	Maximum	Units	Notes
Frequency		32.768		kHz	
Operation Mode	Flexural Mode (Tuning Fork)				
Operating Temperature	-40	-----	+85	°C	
Storage Temperature	-55	-----	+125	°C	
Frequency Tolerance @+25°C	-20	-----	+20	ppm	See options
Temperature Coefficient:	-0.04	-0.03	-0.02	ppm/T ²	
Turn-over temperature:	+20	+25	+30	°C	
Equivalent series resistance (ESR)	-----	-----	100	kΩ	
Load capacitance	-----	12.5	-----	pF	See options
Drive Level	-----	-----	0.5	μW	

OPTIONS AND PART IDENTIFICATION:

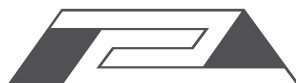
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ABS06L – 32.768 kHz - - -



Contact Abracon for non-standard capacitance

±10ppm tolerance is available. Please contact Abracon for more information.



32.768kHz SMD LOW PROFILE CRYSTAL

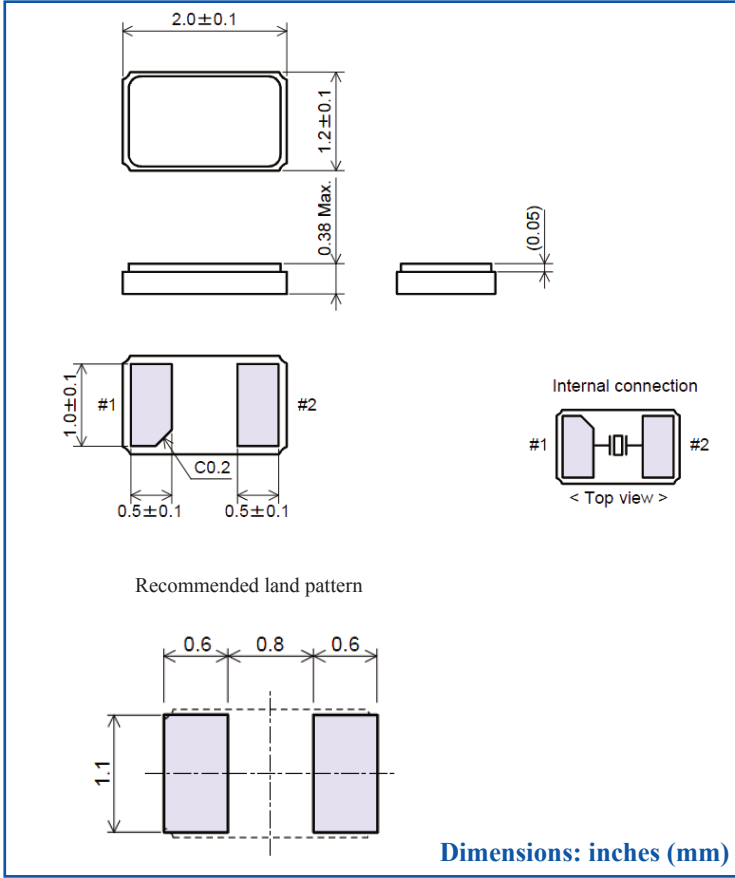


ABS06L

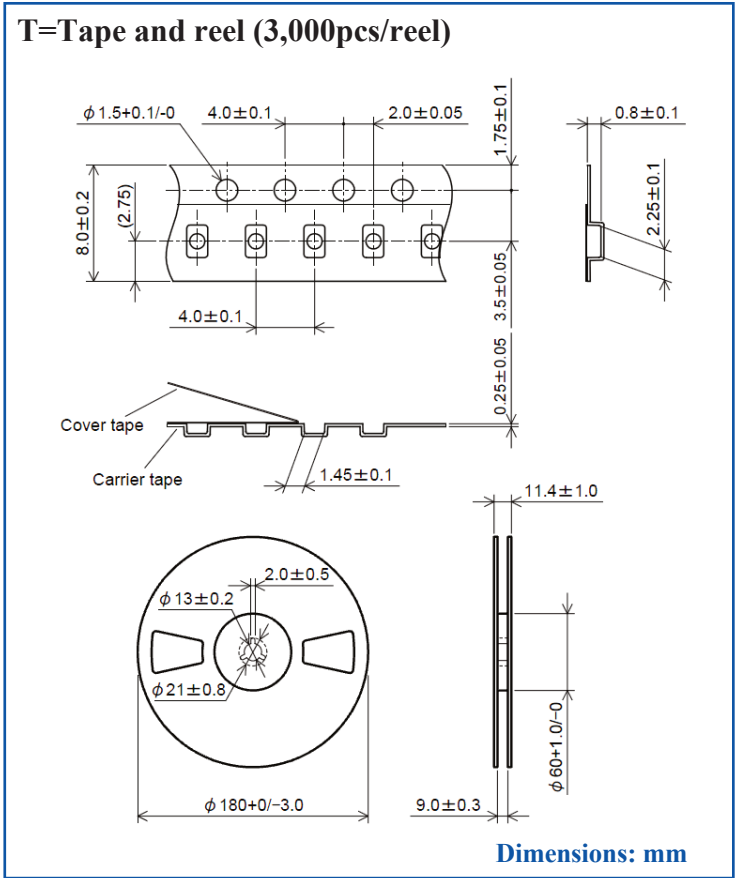


2.0 x 1.2 x 0.38mm

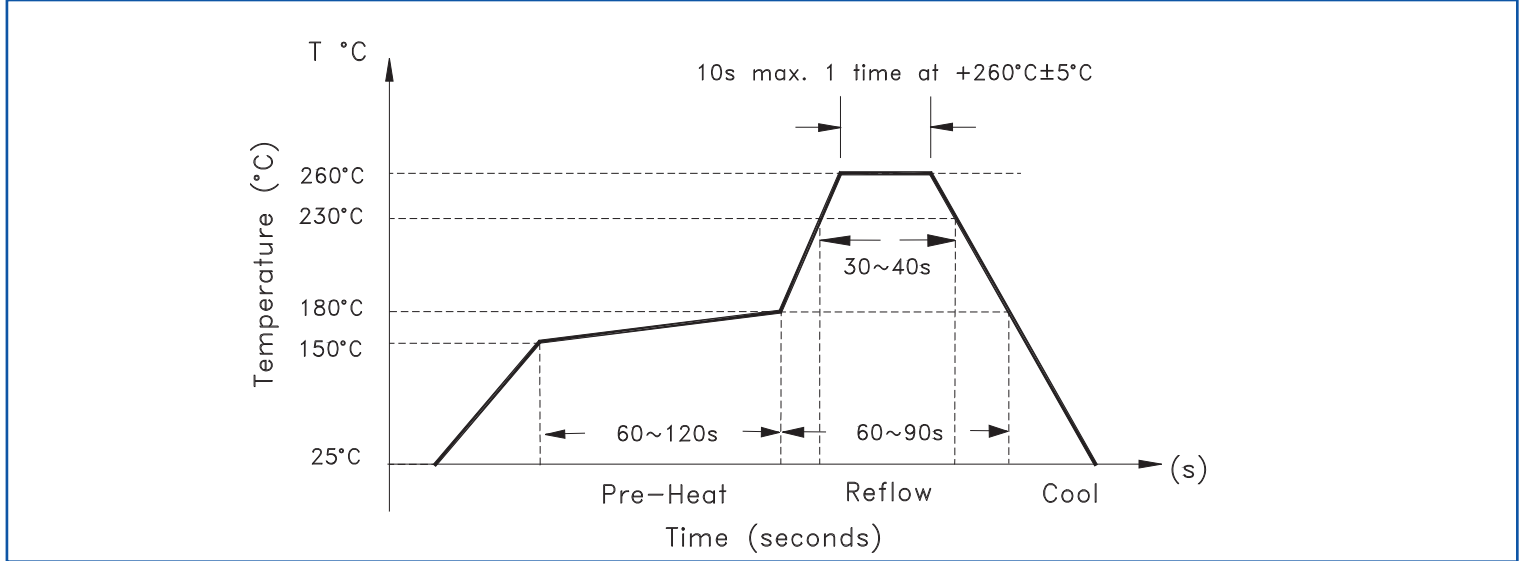
OUTLINE DRAWING:



TAPE & REEL:



REFLOW PROFILE:



Need a test socket for the ABS06 Series? To view compatible **PRECISION TEST & BURN-IN SOCKETS** for these parts, [click here](#). P/N AXS-2012-02-04

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32.768kHz SMD LOW PROFILE CRYSTAL

ABS07



3.2 x 1.5 x 0.9 mm

ABS07



RoHS
Compliant

FEATURES:

- Low frequency in small size SMD
- 0.9mm height ideal for high density circuit boards
- Seam sealed ceramic package offers excellent environmental & heat resistance
- Extended temperature -40°C to +85°C for industrial applications

APPLICATIONS:

- Wide range in communication & measuring equipment
- Commercial & Industrial applications
- Wireless communications
- PDA and Smartphone

STANDARD SPECIFICATIONS

Parameters	Minimum	Typical	Maximum	Units	Notes
Frequency		32.768		kHz	
Operation Mode	Flexural Mode (Tuning Fork)				
Operating Temperature	-40	-----	+85	°C	
Storage Temperature	-55	-----	+125	°C	
Frequency Tolerance @+25°C	-20	-----	+20	ppm	See options
Temperature Coefficient:	-0.040	-0.036	-----	ppm/T ²	
Turn-over temperature:	+20	+25	+30	°C	
Equivalent series resistance (R1)	-----	-----	70	kΩ	
Shunt capacitance (C0)	-----	0.9 ~ 1.2	-----	pF	
Load capacitance (CL)	-----	12.5	-----	pF	See options
Drive Level	-----	0.1	0.5	μW	
Q value	10000	30000	-----	-----	
Aging@25°C±3°C	-3	-----	3	ppm	First year
Insulation Resistance	500	-----	-----	MΩ	@ 100Vdc ± 15V

OPTIONS AND PART IDENTIFICATION (left blank if standard)

ABS07 - 32.768 kHz - - -

Load Capacitance
Blank: 12.5pF
9: 9pF
7: 7pF
6: 6pF

Frequency Tolerance
Blank: ±20ppm
1: ±10ppm
4: ±30ppm

Packaging
Blank: Bulk
T: Tape & Reel (3000pcs/reel)

32.768kHz SMD LOW PROFILE CRYSTAL

ABS07



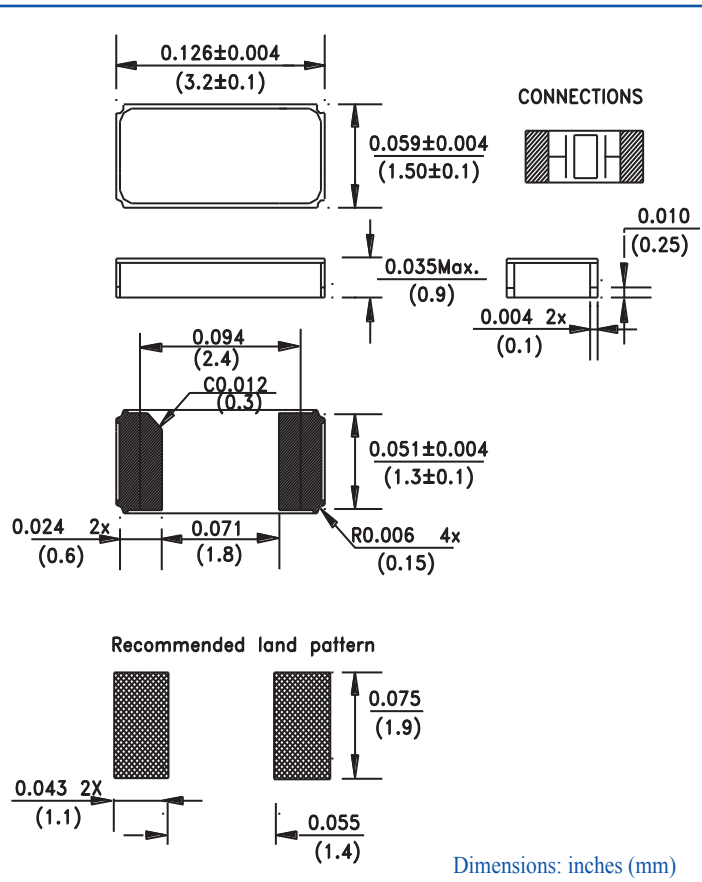
3.2 x 1.5 x 0.9 mm

ABS07



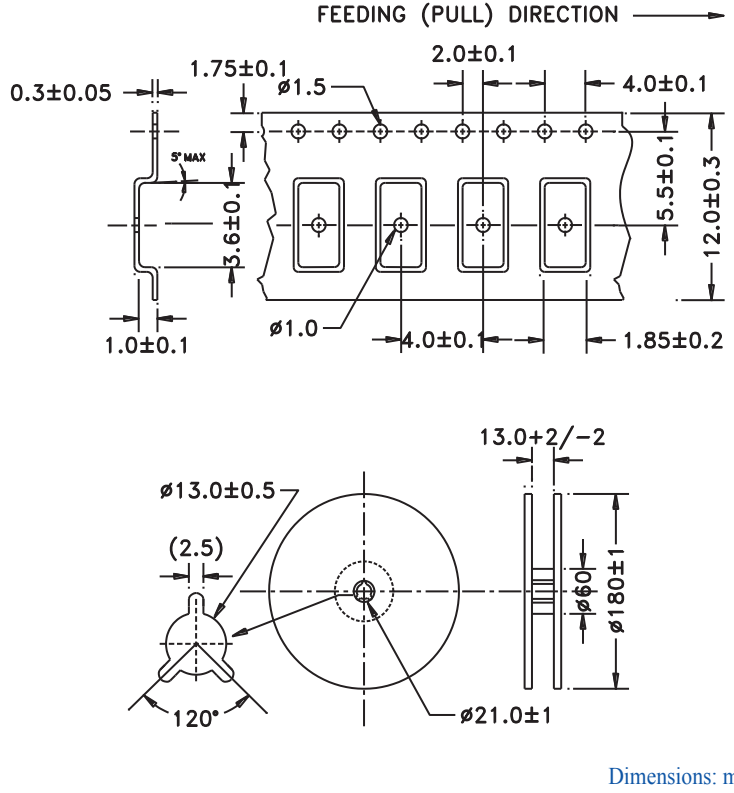
RoHS
Compliant

OUTLINE DIMENSIONS

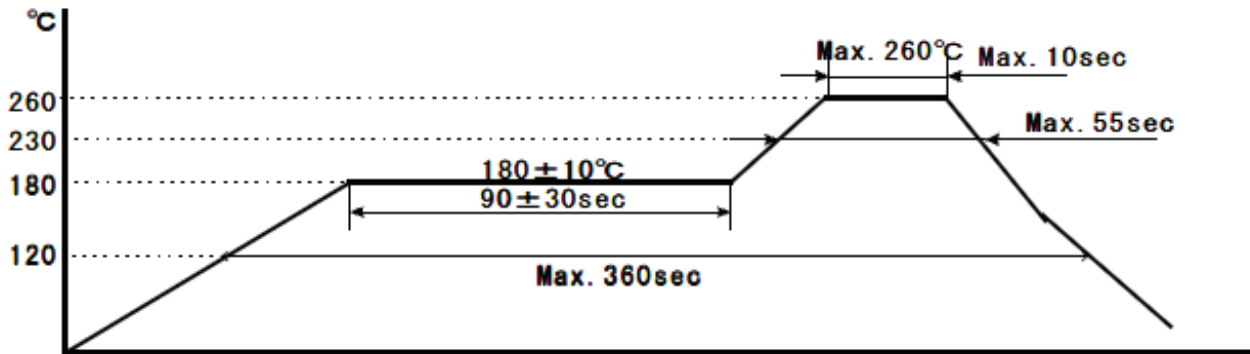


TAPE & REEL

T=Tape and reel (3,000pcs/reel)

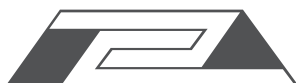


REFLOW PROFILE



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