

## MINIATURE CERAMIC SMD CRYSTAL (3.2 x 2.5 x 0.7mm)

### FEATURES:

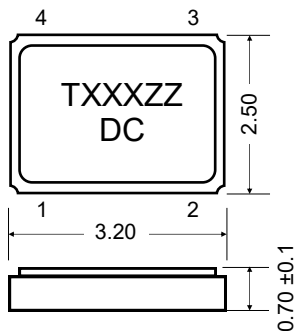
- WIDE FREQUENCY RANGE
- LOW COST SMD PACKAGE
- LOW PROFILE / SUITABLE FOR REFLOW



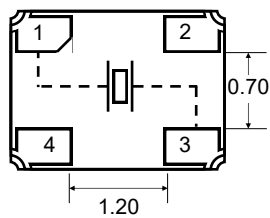
### ■ SPECIFICATION

FREQUENCY RANGE	8.000MHz ~ 60.000MHz	
FREQUENCY TOLERANCE @ 25°C	±10ppm ~ ±50ppm (See P/N guide for options)	
FREQUENCY STABILITY	±10ppm ~ ±50ppm (See P/N guide for options)	
OPERATING TEMPERATURE RANGE	STD: 0°C ~ 70°C (See P/N guide for other options)	
STORAGE TEMPERATURE RANGE	-55°C ~ 125°C	
LOAD CAPACITANCE	STD: 18pF (See P/N guide for other options)	
SHUNT CAPACITANCE	3.5pF max.	
INSULATION RESISTANCE	500MΩ min. @ 100V <sub>DC</sub> ± 15V <sub>DC</sub>	
DRIVE LEVEL	300μW max.	
AGING @ 25°C ± 3°C	±2.0ppm / 1 <sup>st</sup> year max.	
EQUIVALENT SERIES RESISTANCE	8.000MHz ~ 9.000MHz: 800Ω max. 11.001MHz ~ 12.000MHz: 120Ω max. 13.001MHz ~ 16.000MHz: 80Ω max. 21.001MHz ~ 30.000MHz: 60Ω max.	10.001MHz ~ 11.000MHz: 120Ω max. 12.001MHz ~ 13.000MHz: 100Ω max. 16.001MHz ~ 21.000MHz: 70Ω max. 30.001MHz ~ 60.000MHz: 50Ω max.
OPERATION MODE	AT cut, Fundamental	

### ■ PACKAGE DIMENSIONS



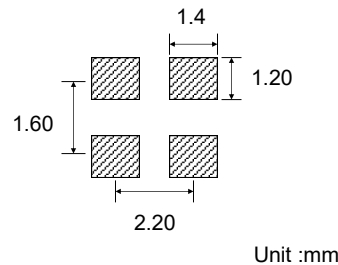
**Marking format**  
T = Transko  
XXX = 1st 3 digits of freq  
ZZ = load cap code  
DC = YYWW



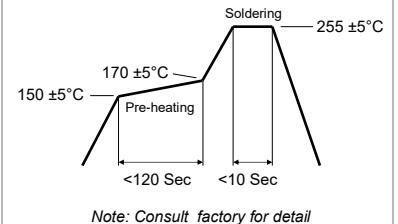
Pin Configuration	
1	Xtal
2	GND
3	Xtal
4	GND

Unit : mm

### ■ SOLDER PATTERN



### ■ REFLOW PROFILE

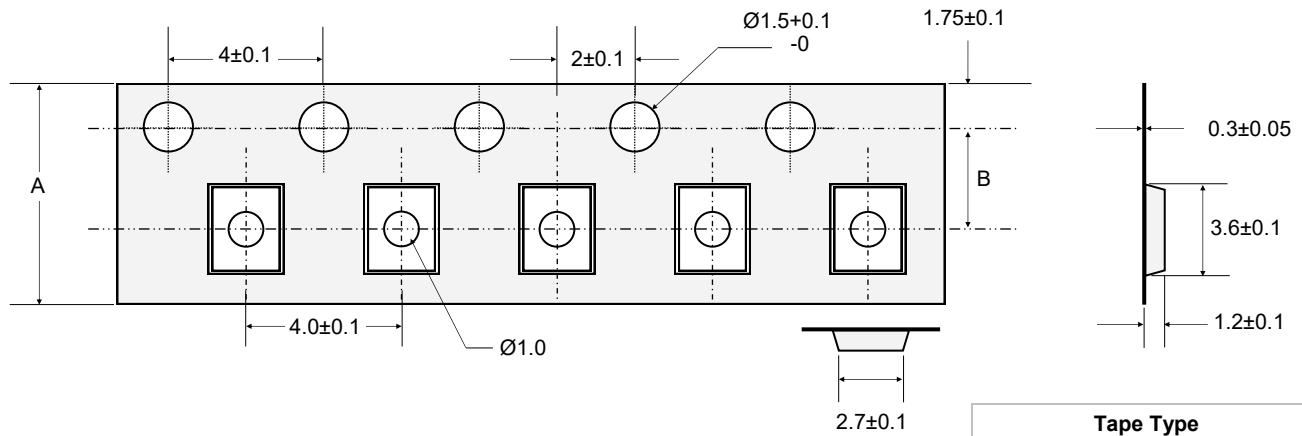


### ■ PART NUMBERING GUIDE

CX32	F	25	50	HM	18	40.000M	TR
<b>Mode</b>	F: Fundamental						
<b>Stability</b>	00: ± 100ppm 50: ± 50ppm 25: ± 25ppm 15: ± 15ppm 10: ± 10ppm XX: Two digit for Stability						
<b>Load Cap Code</b>	XX: 2 digit load value 08: 8pF 10: 10pF 12: 12pF 16: 16pF 18: 18pF	20: 20pF 22: 22pF 24: 24pF 28: 28pF 32: 32pF					
<b>Options</b>							TR: Tape reel
<b>Tolerance @ 25°C</b>	00: ± 100ppm 50: ± 50ppm(standard) 30: ± 30ppm 25: ± 25ppm 10: ± 10ppm XX: Two digit Tolerance						
<b>Operating Temperature</b>	A: -55 B: -50 C: -40 D: -35 E: -30	F: -20 G: -10 H: 0 J: 50 K: 60	M: 70 N: 75 P: 80 Q: 85 R: 90	S: 100 T: 105 U: 125 X: custom			
<b>Frequency</b>						M: MHz	

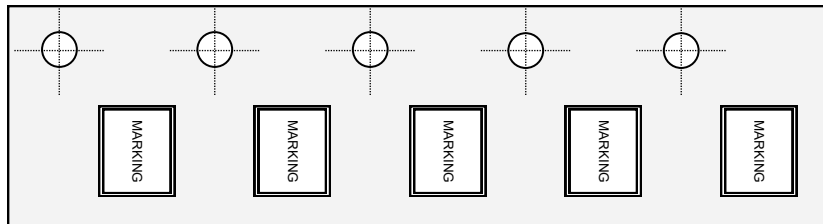
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► **Tape (Carrier) Dimensions**

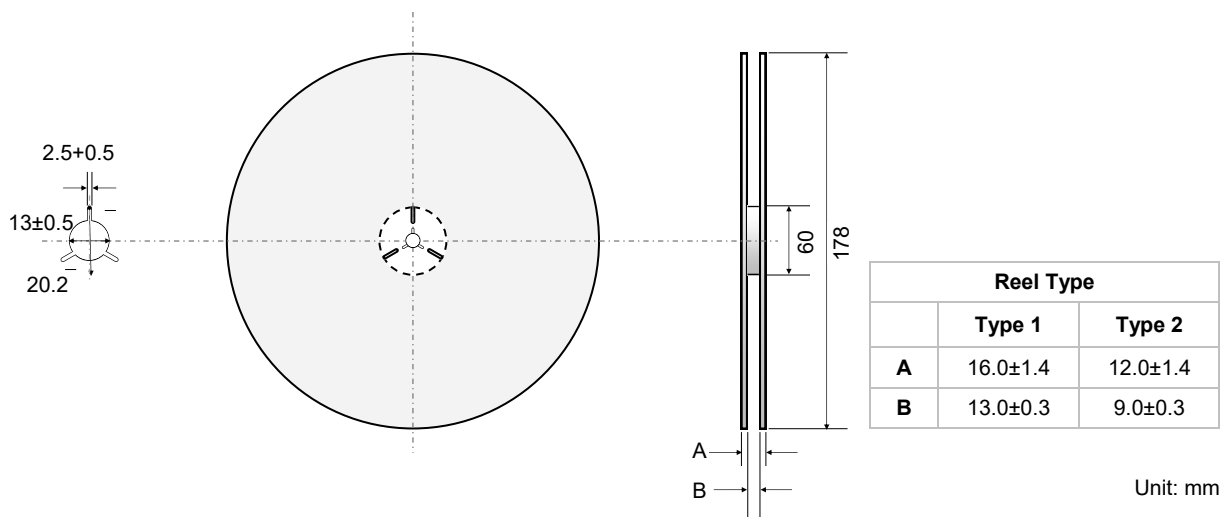


Tape Type		
	Type 1	Type 2
<b>A</b>	12	8
<b>B</b>	5.5±0.05	3.5±0.05

► **The Direction of Packing**



► **Reel Dimensions**



Reel Type		
	Type 1	Type 2
<b>A</b>	16.0±1.4	12.0±1.4
<b>B</b>	13.0±0.3	9.0±0.3

Q'ty: 3000pcs/reel

Unit: mm

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