Accurate Kinetic Energy
No.11-3 Jianguo Rd., T.E.P.Z. 42760 Taiwan, ROC

All dimensions are millimeters.

CAD:	TCR	
Review:	EG	
Appr:	JL	
Page:	1/4	Date: August 01,2022

Specification Title:

Temperature Compensated
Crystal Oscillator
Automotive Grade
TCXO - Ceramic Package
3.2 x 2.5 millimeter Surface Mount

AEC-Q200 Qualified
IATF 16949 Certified

Part Number: TX32 Auto Series

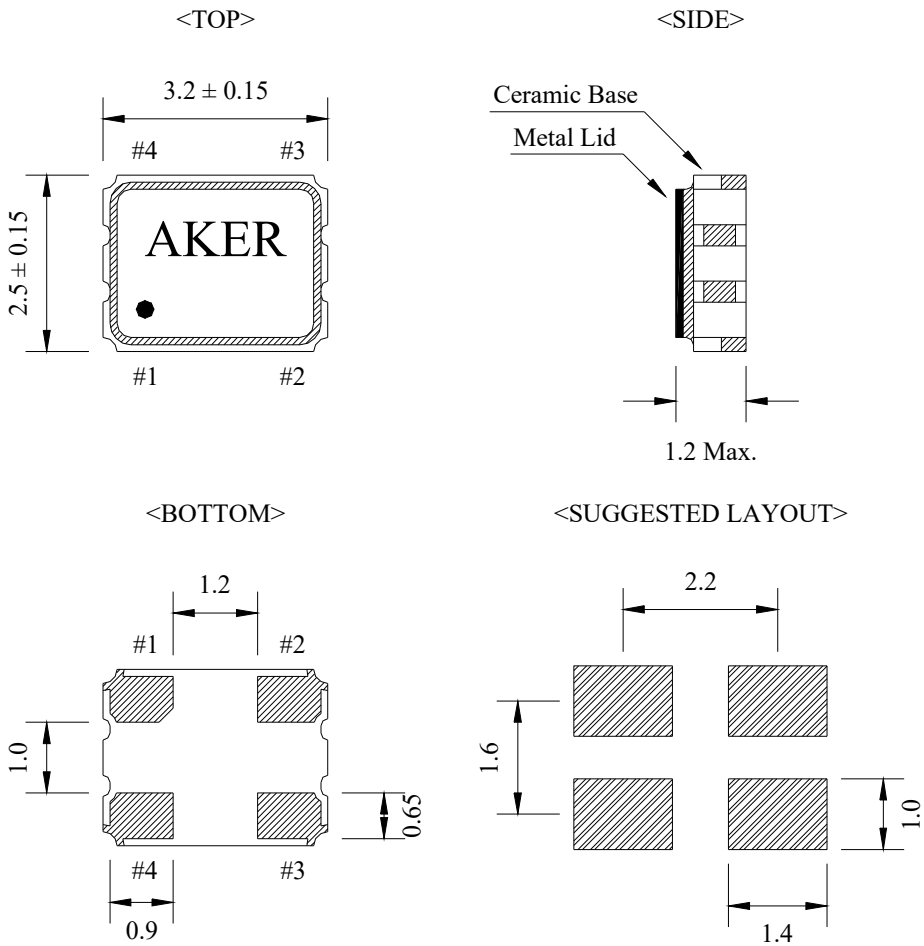
Electrical Specifications:

Frequency Range		10.000 to 52.000	MHz
Frequency Tolerance		±2.0	ppm Max.
Frequency Stability vs. Operating Temperature		±0.5 ~ ±2.0	
Frequency Stability vs. Supply Voltage Change		±0.2	
Frequency Stability vs. 10% Load Change		±0.2	
Aging per Year		±1.0	
Operating Temperature Range	Standard	-20 to +70	°C
	Extended	-40 to +85	
Storage Temperature Range		-55 to +125	
Supply Voltage		1.8 ± 5%	VDC
		2.5 ± 5%	
		3.3 ± 5%	
		1.68 ~ 3.63	
Input Current		2.5	mA Max.
Output Level		0.8	Vp-p Min.
Output Waveform		Clipped Sinewave	
Output Load		10KΩ // 10pF	
Phase Noise	@100Hz Offset	-114	dBc/Hz Typ.
	@1KHz Offset	-131	
	@10KHz Offset	-148	
Start Up Time		2	ms Max.

RoHS Compliant
Pb - Lead Free
AEC-Q200 Qualified
IATF 16949 Certified

Ltr	Revisions	Date	Appr

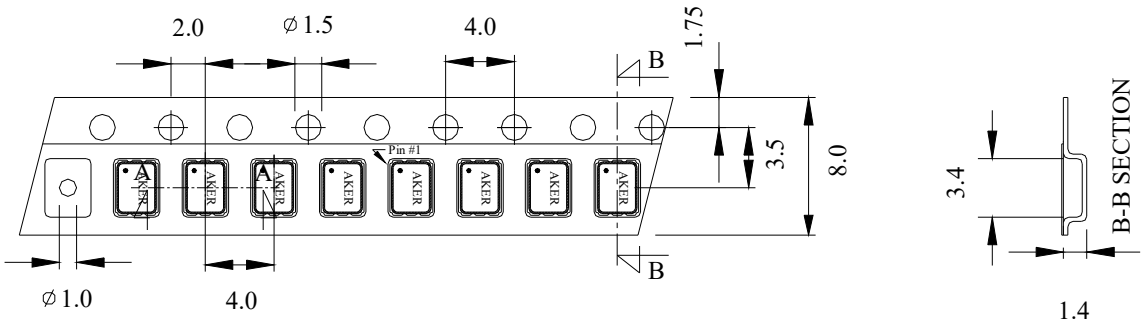
Mechanical Outline and Solder Pad Layout:

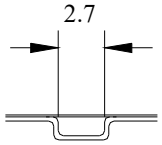


PIN No.	Connection
#1	NC / GND
#2	GND
#3	Output
#4	VDC

Package is Seam Sealed Ceramic-Metal.
Dimensions are millimeters.

Carrier Tape Dimensions:

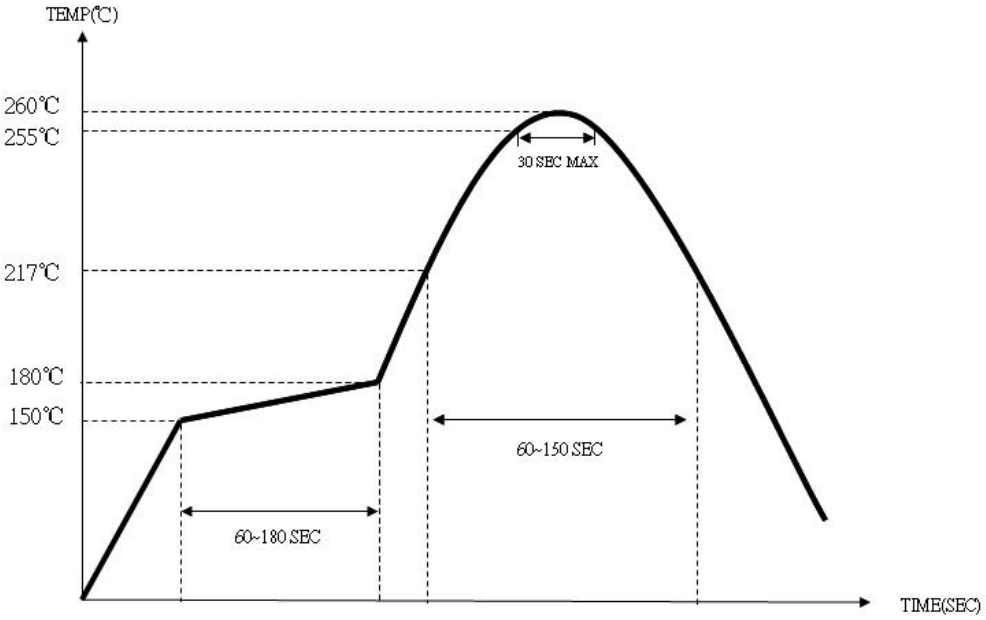




A-A SECTION

Dimensions are millimeters.

Solder Reflow Characteristics:



How to build a Part Number:

Series	TX	Parameter
Package	32	3.2 x 2.5 mm
	-	
Supply Voltage	18	1.8 VDC ± 5%
	25	2.5 VDC ± 5%
	33	3.3 VDC ± 5%
	M	1.68 ~ 3.63 VDC
Temperature Stability	005	±0.5 ppm
	010	±1.0 ppm
	020	±2.0 ppm
Output Waveform	S	Clipped Sinewave
	-	
Frequency	10.000~52.000	MHz
	-	
AECQ-200	A	Automotive
	-	
Temperature Range	See Notes	-20 to +70 °C
	X	-40 to +85 °C
	-	
Packaging	R	1000pcs Reel
	R3	3000pcs Reel

Part Number Example:

TX32-33020S-26.000-A-X-R

TX32: 3.2 x 2.5 mm SMD Package

33: +3.3 VDC Supply Voltage

020: ±2.0 ppm Temperature Stability

S: Clipped Sinewave Output

26.000 MHz Nominal Frequency

X: -40 to + 85°C Temperature Range

R: Tape and Reel Packaging

Notes:

1- Standard Temperature Range do not need to be included in Part Number description.

2- Product is shipped in Tape and Reel configuration.

3- Quantities less than 1000 pieces are shipped bulk in ESD pouches.

4- Specification subject to change without notice.