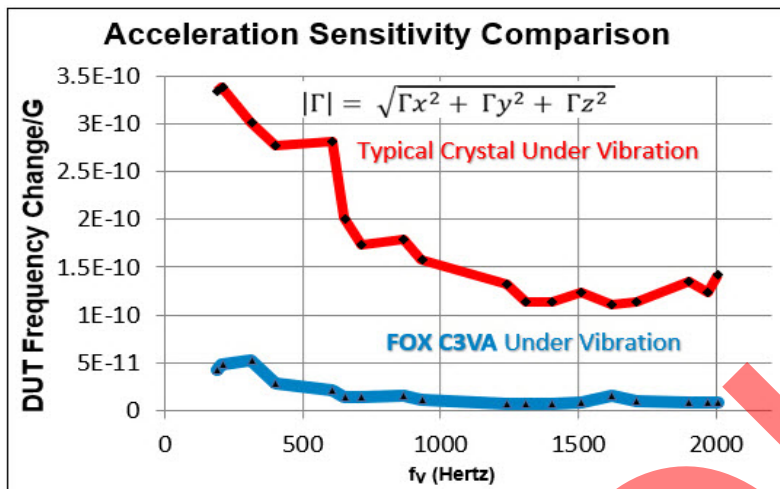


ECN/PCN No.: 3976

For Manufacturer			
Product Description: Vibration Resistant Crystal	Abrakon Part Number / Part Series: FC3VR	☐ Documentation only ☐ ECN ☒ EOL	☒ Series ☐ Part Number
Affected Revision: D	New Revision: EOL	Application:	☐ Safety ☒ Non-Safety
Prior to Change: FC3VR Rev D 07/23/2021			
After Change: EOL			
Cause/Reason for Change: Discontinuation of manufacturing capability due to material availability.			
Change Plan			
Effective Date: Immediate	Additional Remarks: None		
Change Declaration:			
Issued Date: 9/30/2021	Issued By: Stephanie Lopez	Issued Department: Engineering	
Approval: Thomas Culhane Engineering Director	Approval: Reuben Quintanilla Quality Director	Approval: Ying Huang Purchasing Director	
For Abracon EOL only			
Last Time Buy (if applicable): None		Alternate Part Number / Part Series: None	
Additional Approval:	Additional Approval:	Additional Approval:	
Customer Approval (If Applicable)			
Qualification Status: ☐ Approved ☐ Not accepted <i>Note: It is considered approved if there is no feedback from the customer 1 month after ECN/PCN is released.</i>			
Customer Part Number:		Customer Project:	
Company Name:	Company Representative:	Representative Signature:	
Customer Remarks:			

Features

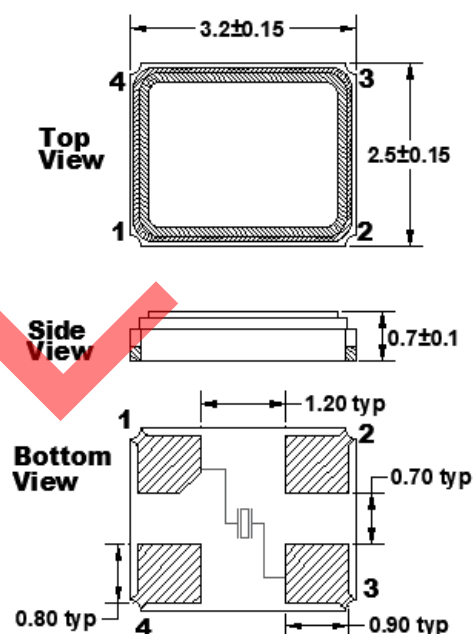
- Low G sensitivity
- Tolerances down to ± 10 ppm
- Custom application inquiries invited
- Patented technology



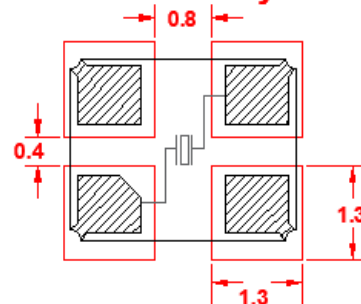
STANDARD SPECIFICATIONS

PARAMETERS	MAX (Unless otherwise noted)
Frequency Range	33 ~ 52 MHz
Resonance Mode	Fundamental
Frequency Tolerance @ 25°C	(See options below)
Frequency Stability, ref 25°C	(See options below)
Temperature Range	
Operating (T_{OPR})	(See options below)
Storage (T_{STG})	-55°C ~ +125°C
Equivalent Series Resistance (ESR)	60Ω Max
Shunt Capacitance (C_0)	3.0 pF
Load Capacitance (C_L)	(See options below)
Drive Level	100μW
Aging per year (@ 25°C)	± 5 PPM
Vibration Sensitivity	0.2 ppb/G
Maximum Soldering Temp / Time	260°C / 10 Seconds x 2
Moisture Sensitivity Level (MSL) per J-STD-033	N/A
Termination Finish	Au (0.3~0.75μm) over Ni (1.27~8.89μm)
Seal Method	Seam
Lead (Pb) Free	Yes
RoHS Compliant	Yes, no exemptions
RoHS/REACH Compliant	Yes

DIMENSIONS / MECHANICAL SPECIFICATIONS



Recommended Solder Pad Layout



#2 & #4 connected to metal top

All Dimensions in mm

AVAILABLE OPERATING TEMPERATURES AND STABILITIES

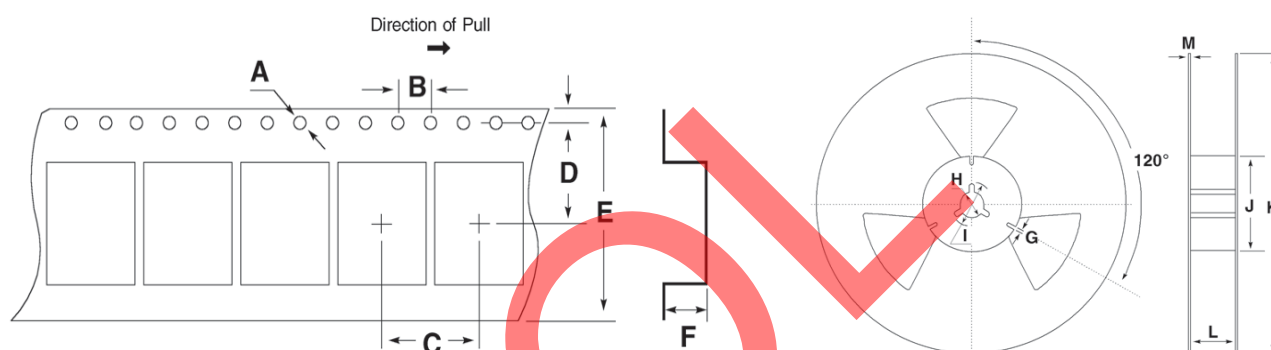
Operating Temperature	±20 PPM	±25 PPM	±30 PPM	±50PPM
-20 ~ +70°C	O	O	O	O
-40 ~ +85°C	O	O	O	O

Key: O = Available.

TAPE SPECIFICATIONS (mm)

A	B	C	D	E	F	STD REEL QTY	G	H	I	J	K	L	M
ø1.5	4.0	4.0	3.5	8.0	1.3	-T3 = 3,000 Default -T1 = 1,000	2.0	ø13	ø21	ø80	ø180	9.0	2.0

REEL SPECIFICATIONS (mm)

Available Options & Part Identification for Crystal Model C3VR¹Sample PN: **FC3VREEGM40.0-T3**

F	C3VR	E	E	G	M	40.0	-T3
Fox	Model Number	Tolerance B = ±50PPM C = ±30PPM D = ±25PPM E = ±20PPM F = ±15 PPM H = ±10 PPM	Stability B = ±50PPM C = ±30 PPM D = ±25 PPM E = ±20 PPM	Load Capacitance² V = 7 pF D = 8 pF W = 9 pF E = 10 PF G = 12 pF J = 15 PF K = 16 PF	Operating Temperature F = -20 ~+70°C M = -40 ~ +85°C	Frequency (MHz)	Values Added Options Blank = Bulk T1 = 1,000 pcs T3 = 3,000 pcs

¹ Not all frequency, tolerance, stability, load, and operating temperature combinations may be available.² Listed load capacitances represent the most commonly used. Other load capacitances are available. Contact us for assistance

Reliability Test Conditions

Please contact Abracon Quality Assurance department