

ECN/PCN No.: 5100

For Manufacturer			
Product Description: Oscilent-Crystal	Abracon Part Number / Part Series: 253	☐ Documentation only ☐ ECN ☒ EOL	☒ Series ☐ Part Number
Affected Revision: REV A	New Revision: EOL	Application:	☐ Safety ☒ Non-Safety
Prior to Change: ACTIVE			
After Change: EOL			
Cause/Reason for Change: As part of an effort to streamline our portfolio and better serve customers, we are discontinuing select products and offering a Last Time Buy period.			
Change Plan			
Effective Date: 11/27/2025	Additional Remarks:		
Change Declaration: Product Discontinuation			
Issued Date: 8/29/2025	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): 2/27/2026	Alternate Part Number / Part Series: N/A		
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:			

Package	Description
HC-49SM 4 Pad	SMD Quartz Crystal

Features

- Cost Effective
- Low Profile
- Space saving design
- Tape and Reel



Electrical Characteristics

Parameter	Conditions	Characteristics	Units
Frequency Range	f ₀	3.579545 ~ 30.999	MHz
Frequency Tolerance	Ref @ +25°C	±30 (Std.) / ±15, ±50 (Option)	PPM
Temperature Stability	TL	±50 (Std.) / ±30, ±100 (Option)	PPM
Operating Temperature	TOPR	-20 ~ +70 (Std.) / -40 ~ +85 (Option)	°C
Storage Temperature	TSTG	-40 ~ +85	°C
Resistance	ESR	(See Table 1)	Ohms
Mode of Operation		Fundamental	
Shunt Capacitance	C ₀	7.0 max.	pF
Load Capacitance	C _L	18.0 (Std.) / 10 ~ 50 and Series (Option)	pF
Drive Level	DL	1.0 max.	mW
Aging (First Year)	@ +25°C	±5.0	PPM/Y
Insulation Resistance	IR	500 (DC100 ±10V) min.	Mohm

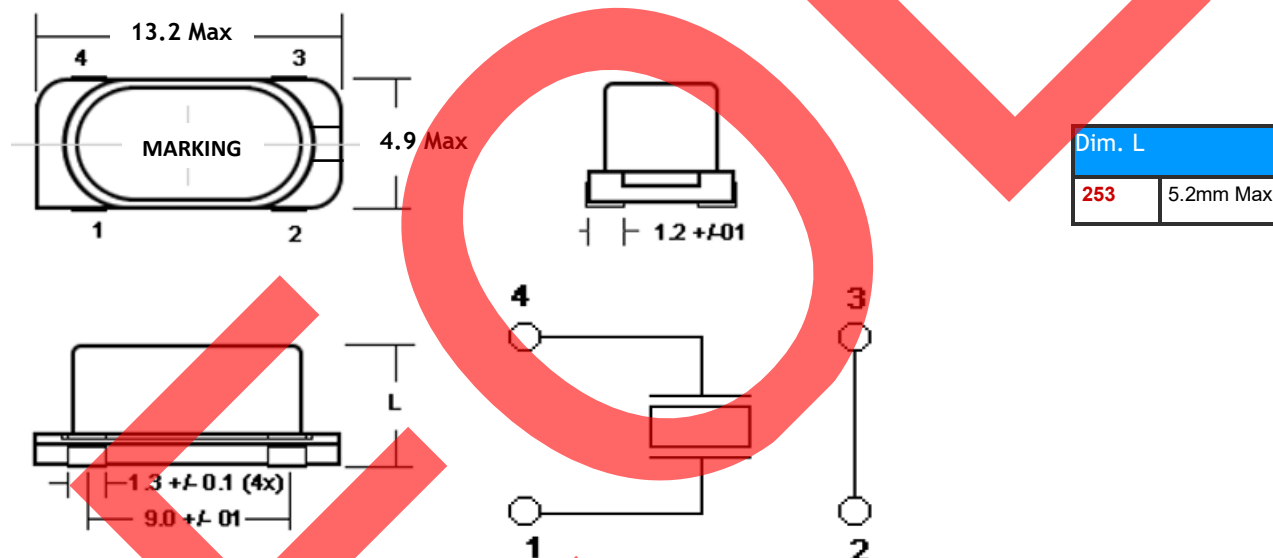
Table 1: Operation Mode and Motional Resistance

Frequency Range	Mode	Ohm Max	Frequency Range	Mode	Ohm Max
3.579545 ~ 4.999	Fundamental/AT	200	15.0 ~ 15.999	Fundamental/AT	60
5.0 ~ 5.999	Fundamental/AT	150	16.0 ~ 23.999	Fundamental/AT	50
6.0 ~ 7.999	Fundamental/AT	120	24.0 ~ 30.999	Fundamental/AT	40
8.0 ~ 8.999	Fundamental/AT	90			
9.0 ~ 9.999	Fundamental/AT	80			
10.0 ~ 14.999	Fundamental/AT	70			

Table 2: Part Numbering Guide

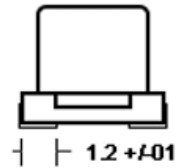
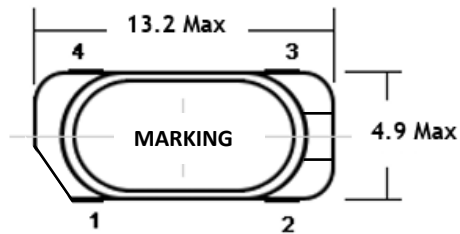
Series Number	Frequency	Load Capacitance	Tolerance @ +25oC	Tolerance Over Temp (oC)	Operating Temp (oC)	Packaging
253	- 12.0M	- 18	- 50	N	W	- TR
HC-49SM	Enter desired standard freq. and enter here e.g. 2.048M for 2.048 MHz OR enter any desire frequency.	Enter desired capacitance here. e.g. -20 for 20pF	Blank * = ± 30 PPM 15 = ± 15 PPM 50 = ± 50 PPM	Blank* = ± 50 PPM G = ± 30 PPM N = ± 100 PPM	S = -20~+70 W = -40~+85	Blank* = Bulk TR = Tape/Reel
NOTE: Deviations on all parameters available. Please consult Oscilent for details. *STANDARDS: "Blank" part number selections indicate standard variables for that particular characteristic.						

Package Dimensions

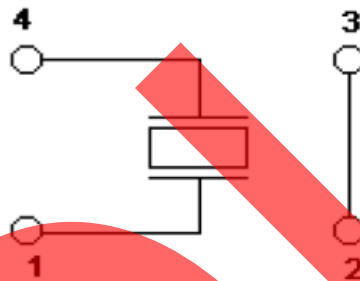
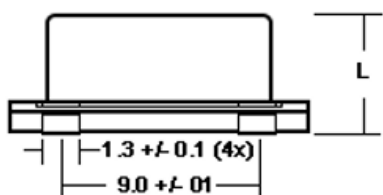


Note: Bottom side; package requires use of Epoxy Sealant.

Alternative Package Dimensions

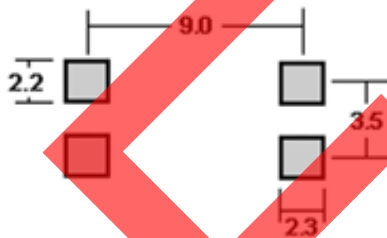


Dimension L	
253	5.2mm Max



Note: Bottom side; package does not require use of Epoxy Sealant.

Solder Pad Layout



Tapes & Reel

