

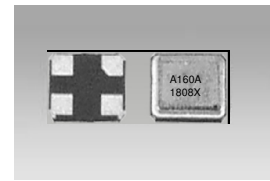
# SURFACE MOUNT CRYSTAL UNITS (Rohs Compliant / Lead Free)

## Ceramic Crystal SMD2.5x2mm (AP4-SMD025 Series)



### - SPECIFICATIONS

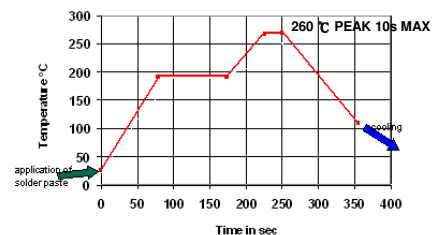
FREQUENCY RANGE		12.0MHz TO 60.000 MHz
MODE OF OSCILLATION	FUNDAMENTAL	12.0MHz TO 60.000 MHz
FREQUENCY TOLERANCE AT 25°C		±30PPM MAXIMUM <±30PPM ARE AVAILABLE
FREQUENCY STABILITY OVER TEMPERATURE RANGE		±30PPM MAXIMUM <±30PPM ARE AVAILABLE
OPERATING TEMPERATURE RANGE		-20°C TO +70°C STANDARD -40°C TO +85°C EXTENDED
STORAGE TEMPERATURE RANGE		-40°C TO +85°C
SHUNT CAPACITANCE		3pF MAXIMUM
LOAD CAPACITANCE		8pF TO 12pF OR SPECIFIED
EQUIVALENT SERIES RESISTANCE (ESR)		SEE TABLE
DRIVE LEVEL		50 TO 100µW
AGING PER YEAR		±2PPM MAXIMUM STANDARD <±2PPM ON REQUEST



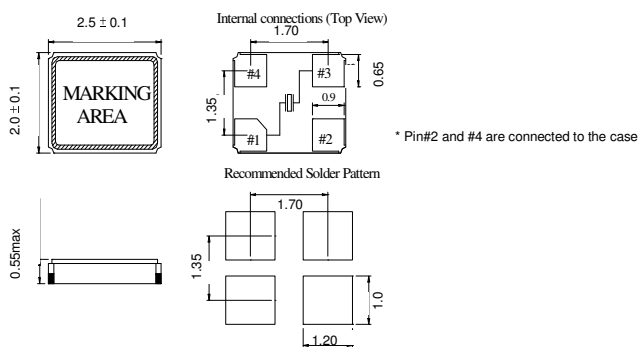
### - Equivalent Series Resistance (ESR) and Mode Of Vibration (Mode)

Frequency Range (MHz)	ESR max.	Mode
12.000 to 15.999	120	Fundamental
16.000 to 19.999	100	Fundamental
20.000 to 29.999	80	Fundamental
30.000 to 60.000	50	Fundamental

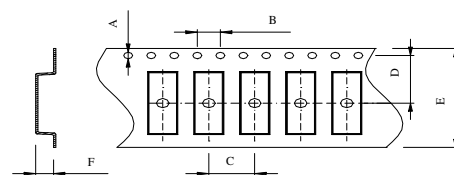
### - SOLDER REFLOW PROFILE



### - OUTLINE DIMENSIONS



### - CARRIER TAPE DIMENSIONS (3,000 pcs/reel)



A	B	C	D	E	F
1.5 ± 0.1	4.0 ± 0.1	4.0 ± 0.1	3.5 ± 0.1	8.0 ± 0.3	1.0 ± 0.1

ORDERING CODE SYSTEM (VERSION 1.3 UPDATED NOVEMBER 2008)					EXAMPLE:
SERIES	FREQUENCY	LOAD CAPACITANCE	TEMPERATURE RANGE	TOLERANCE/STABILITY	AP4-SMD025-16-12X-2020
AP4-SMD025	IN MHZ	8pF TO 12pF OR SPECIFIED	X: EXT.TEMP.-40 TO +85°C BLANK: STANDARD	2020: PPM/PPM BLANK: STANDARD	

NON STANDARD FREQUENCIES AND SPECIFICATIONS ARE AVAILABLE ON REQUEST

ActPro Ltd. (APX-Crystal)  
PROREP  
EDGE Meditronics PTE Ltd.

HONG KONG  
FRANCE  
SINGAPORE

Email: [sales@apx-crystal.com](mailto:sales@apx-crystal.com)  
Email: [sales@prorep.fr](mailto:sales@prorep.fr)  
Email: [sales@edgemeditronics.com.sg](mailto:sales@edgemeditronics.com.sg)

Internet: [www.apx-crystal.com](http://www.apx-crystal.com)  
Internet: [www.prorep.fr](http://www.prorep.fr)  
Internet: [www.edgemeditronics.com.sg](http://www.edgemeditronics.com.sg)

Tel: 852-3625 2368 Fax: 852-2633 8503  
Tel: 33-1-4812 1736 Fax: 33-1-4812 1739  
Tel: 65-6455 0521 Fax: 65-6455 0857

Specifications are subject to change without notice