

Features

- Tolerances down to ± 30 PPM
- Stabilities down to ± 15 PPM
- Temperature Ranges as wide as -40°C to $+85^{\circ}\text{C}$
- Available above 28MHz (3rd & 5th Overtone Modes)

STANDARD SPECIFICATIONS	
PARAMETERS	MAX (Unless otherwise noted)
Frequency Range	6.000 ~ 160.000 MHz
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})	$-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
Shunt Capacitance (C_o)	5 pF
Load Capacitance (C_L)	(See options below)
Drive Level	0.5 mW
Aging per year (@ 25°C)	± 5 PPM
Maximum Soldering Temp / Time	$260^{\circ}\text{C} / 10$ Seconds x 2
Moisture Sensitivity Level (MSL) per J-STD-033	1
Termination Finish	Au over Ni
Seal Method	Resin
Lead (Pb) Free	Yes
RoHS Compliant	Yes

Frequency Range (MHz)	Operating Mode	Max ESR Ω
6.000 ~ 7.999	Fundamental	80
8.000 ~ 9.999	Fundamental	60
10.000 ~ 15.999	Fundamental	50
16.000 ~ 50.000	Fundamental	40
28.000 ~ 84.000	3 rd Overtone	60
>84.000 ~ 160.000	5 th Overtone	80

DIMENSIONS / MECHANICAL SPECIFICATIONS
<p>Recommended Solder Pad Layout</p> <p>Dimensions in mm</p>
<p>Note: Dimensional drawing is for reference to critical specifications defined by size measurements. Certain non-critical visual attributes, such as side castellations, etc. may vary.</p>

AVAILABLE OPERATING TEMPERATURES AND STABILITIES*					
Operating Temperature	± 15 PPM	± 20 PPM	± 25 PPM	± 30 PPM	± 50 PPM
$-0^{\circ}\text{C} \sim +75^{\circ}\text{C}$	O	O	O	O	O
$-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$	O	O	O	O	O
$-10^{\circ}\text{C} \sim +70^{\circ}\text{C}$	O	O	O	O	O
$-20^{\circ}\text{C} \sim +70^{\circ}\text{C}$	O	O	O	O	O
$-30^{\circ}\text{C} \sim +85^{\circ}\text{C}$	X	O	O	O	O
$-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$	X	O	O	O	O

Key: O = Available, X = Not Available, Δ = Consult Fox Technical Support, *Does not imply a stocked part.

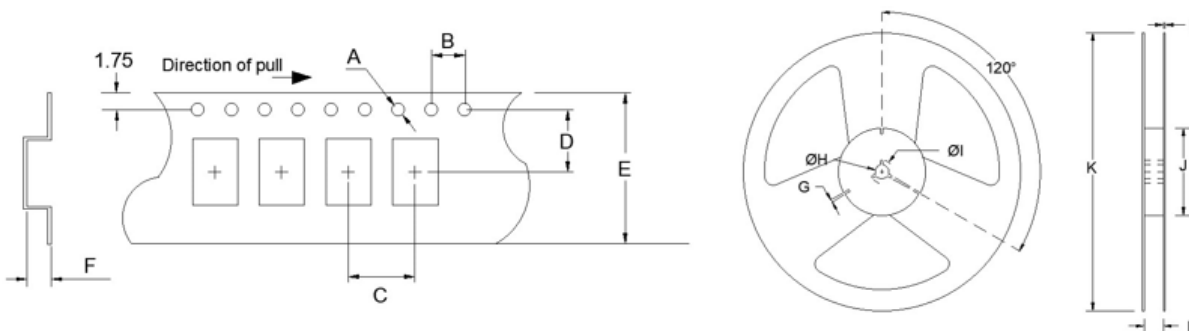
FC7AS

(Former FE)

7.5mm x 5.0mm
Ceramic SMD Crystal



TAPE SPECIFICATIONS (mm)							REEL SPECIFICATIONS (mm)						
A	B	C	D	E	F	REEL QTY	G	H	I	J	K	L	M
ø1.5	4.0	8.0	7.5	16.0	2.3	-T1 = 1,000 -T2 = 2,000 Default	2.0	ø13	ø21	ø80	ø180 ø250	17.5	2.0



Available Options & Part Identification for Ceramic SMD Crystal C7AS¹

Sample PN: **FC7ASCCL40.0-T2**

F	C7AS	C	C	L	M	40.0	-T2
<u>Fox</u>	<u>Model Number</u>	<u>Tolerance</u> B = ±50 PPM C = ±30 PPM	<u>Stability</u> B = ±50 PPM C = ±30 PPM D = ±25 PPM E = ±20 PPM F = ±15 PPM	<u>Load Capacitance²</u> E = 10pF G = 12pF J = 15pF L = 18pF M = 20pF	<u>Operating Temperature</u> C = 0 to +70°C D = -10 to +60°C E = -10 to +70°C F = -20 to +70°C K = -30 to +85°C M = -40 to +85°C	<u>Frequency (MHz)</u>	<u>Values Added Options</u> Blank = Bulk T1 = 1,000 pcs T2 = 2,000 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