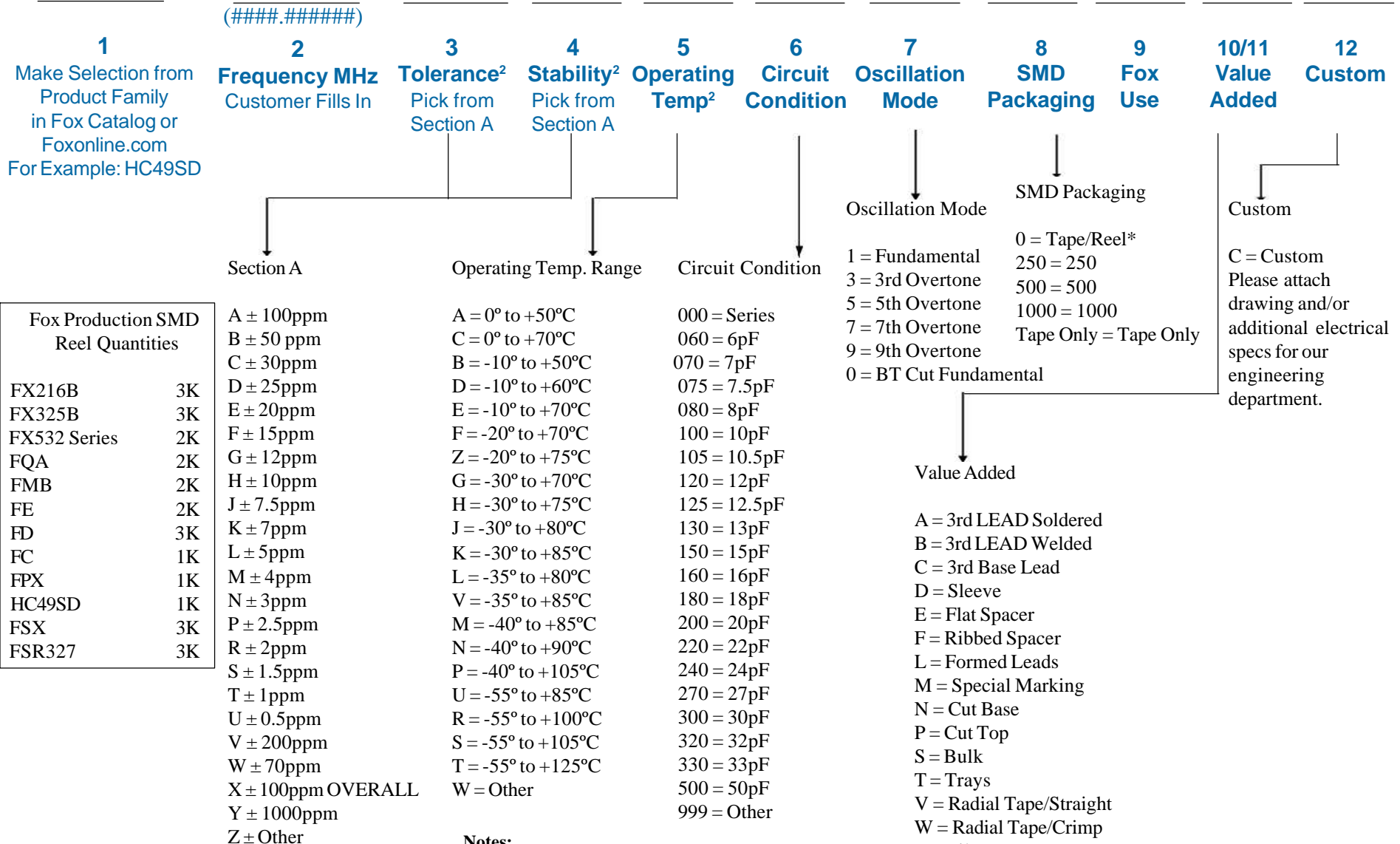


Fox Electronics Part Description¹ Guide for Crystals




¹ Fox unique part numbers for non-standards are randomly generated based on the elements of the part description in a format: **### - Frequency - Random #** (099-22.1184-39789 is Fox unique part number).







² **All combinations are not possible.**






* 0 = Tape/Reel assumes that no quantity per reel was specified: therefore, the Fox Production SMD Reel Quantities list applies. For any other quantities specified a broken reel charge will apply.

- A = 3rd LEAD Soldered
- B = 3rd LEAD Welded
- C = 3rd Base Lead
- D = Sleeve
- E = Flat Spacer
- F = Ribbed Spacer
- L = Formed Leads
- M = Special Marking
- N = Cut Base
- P = Cut Top
- S = Bulk
- T = Trays
- V = Radial Tape/Straight
- W = Radial Tape/Crimp
- Y = Filter Box
- Z = SMD Tape
- Z8 = SMD 8mm Tape (FPX Only)
- Z12 = SMD 12mm Tape (FPX and FPX Rev. C)

QUARTZ CRYSTAL SELECTION GUIDE

• SURFACE MOUNT CRYSTALS					
PRODUCT	FX216B	FX325B	FX532 Series	FQA	FMB
					
Frequency Range	26.000 ~ 60.000 MHz	16.000 ~ 50.000 MHz	10.000 ~ 67.000 MHz	10.000 ~ 67.000 MHz	10.000 ~ 67.000 MHz
Frequency Tolerance	±50 PPM ~ ±10 PPM	±50 PPM ~ ±20 PPM	±50 PPM ~ ±10 PPM	±50 PPM ~ ±20 PPM	±50 PPM ~ ±5 PPM
Frequency Stability	±50 PPM ~ ±10 PPM	±50 PPM ~ ±20 PPM	±50 PPM ~ ±10 PPM	±100 PPM ~ ±20 PPM	±100 PPM ~ ±3 PPM
Temperature Range	-10°C ~ +60°C to -30°C ~ +80°C	-10°C ~ +60°C to -40°C ~ +85°C	-10°C ~ +60°C to -40°C ~ +85°C	-10°C ~ +60°C to -40°C ~ +85°C	-10°C ~ +60°C to -40°C ~ +85°C
Key Features	<ul style="list-style-type: none"> • 2.0 x 1.6mm • 0.55mm Height Max • Fundamental • Ultra Low Profile 	<ul style="list-style-type: none"> • 3.2 x 2.5mm • 1.0mm Height Max • Fundamental to 50 MHz • Resin Sealed or Seam Sealed 	<ul style="list-style-type: none"> • 5 x 3.2mm • 1.0mm Height Max • Fundamental to 67 MHz • Resin Sealed or Seam Sealed 	<ul style="list-style-type: none"> • 6 x 3.5mm • 1.4mm Height Max • Low Cost - Resin Sealed • Fundamental to 40 MHz 	<ul style="list-style-type: none"> • 6 x 3.5mm • 1.1mm Height Max • Fundamental to 67 MHz • Seam Sealed
Catalog Pages	Page 11	Page 12	Page 13	Page 14	Page 15

PRODUCT	FE	FD	FC	FPX	HC49SD
	 Stocking Std.			 Stocking Std.	 Stocking Std.
Frequency Range	6.000 ~ 160.000 MHz	9.8304 ~ 160.000 MHz	3.200 ~ 7.200 MHz	3.579545 ~ 90.000 MHz	3.200 ~ 70.000 MHz
Frequency Tolerance	±50 PPM ~ ±20 PPM	±50 PPM ~ ±5 PPM	±50 PPM ~ ±20 PPM	±50 PPM ~ ±20 PPM	±30 PPM ~ ±10 PPM
Frequency Stability	±50 PPM ~ ±15 PPM	±50 PPM ~ ±3 PPM	±50 PPM ~ ±15 PPM	±100 PPM ~ ±20 PPM	±50 PPM ~ ±5 PPM
Temperature Range	-10°C ~ +60°C to -40°C ~ +85°C	-10°C ~ +60°C to -40°C ~ +85°C	-10°C ~ +60°C to -40°C ~ +85°C	-10°C ~ +60°C to -40°C ~ +85°C	-10°C ~ +60°C to -40°C ~ +85°C
Key Features	<ul style="list-style-type: none"> • 7.5 x 5mm • 1.7mm Height Max • Low Cost - Resin Sealed • Fundamental to 50 MHz • 2 Additional Footprints (FH, FL) 	<ul style="list-style-type: none"> • 7.5 x 5mm • 1.1mm Height Max • Fundamental to 50 MHz • Seam Sealed 	<ul style="list-style-type: none"> • 11.8 x 5.5mm • 2.1mm Height Max • Low Cost - Resin Sealed 	<ul style="list-style-type: none"> • Low Cost • Plastic Encapsulated 	<ul style="list-style-type: none"> • Low Cost • Fundamental to 50 MHz 
Catalog Pages	Page 16	Page 17	Page 18	Page 19	Page 20

• THRU-HOLE CRYSTALS / WATCH CRYSTALS				
PRODUCT	HC49S	HC80U	HC49U	WATCH CRYSTALS
	 Stocking Std.		 Stocking Std.	
Frequency Range	3.200 ~ 70.000 MHz	3.579545 ~ 200.000 MHz	1.8432 ~ 180.000 MHz	32.768 kHz
Frequency Tolerance	±30 PPM ~ ±10 PPM	±30 PPM ~ ±5 PPM	±30 PPM ~ ±5 PPM	±20PPM
Frequency Stability	±50PPM ~ ±5 PPM	±50 PPM ~ ±3 PPM	±50 PPM ~ ±3 PPM	-0.04PPM / (Δ°C) ²
Temperature Range	-10°C ~ +70°C to -40°C ~ +85°C	-20°C ~ +70°C to -40°C ~ +70°C	-20°C ~ +70°C to -40°C ~ +85°C	-20°C ~ +60°C / -40°C ~ +85°C
Key Features	<ul style="list-style-type: none"> • 3.6mm Profile • Low Cost • Resistance Weld • Fundamental to 50 MHz 	<ul style="list-style-type: none"> • High Frequency Range • Fundamental to 50 MHz 	<ul style="list-style-type: none"> • Low Cost • Fundamental to 40 MHz 	<ul style="list-style-type: none"> • Miniature Pkgs. • Long Term Stability
Catalog Pages	Page 21	Page 22	Page 23	Pages 24 - 26

FASTFOX is a quick delivery service. Check with Fox Customer Service for available frequencies.

IMPORTANT

When ordering any non-standard crystals, please specify series or parallel resonance. If parallel, the load capacitance (CL) needs to be specified in picofarads ____pF.