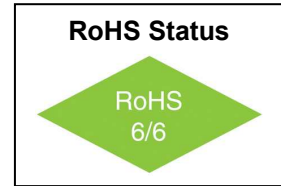


**VFB Series (VFBE, VFBG)**  
**Quartz Crystal**  
**3.2 x 5.0mm, Surface Mount**

**Features**

- Low Profile (1.3mm)
- AT 3-0T Available
- BT Fundamental Available



**Electrical Specifications**

Parameter	Condition	Min	Typ	Max	Unit	Note
Frequency Range		10		50	MHz	
Frequency Tolerance	@ 25°C		±50		ppm	1
Frequency Stability			±100		ppm	2
Operating Temperature Range		-10		+60	°C	
Storage Temperature Range		-30		+80	°C	
Shunt Capacitance (C <sub>0</sub> )				7.0	pF	
Load Capacitance (C <sub>L</sub> )			12.0		pF	
Drive Level			10.0	100	uW	
Aging Per Year	@ 25°C			±5	ppm	1 <sup>st</sup> Yr
ESR	10 MHz - < 12 MHz			100	Ω	Fundamental
	12 MHz - < 16 MHz			50		
	16 MHz - < 30 MHz			40		
	30 MHz - < 50 MHz			30		

Notes:

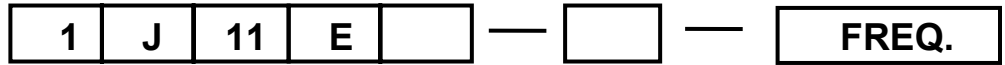
1. Frequency tolerances available to ±30ppm.
2. Temperature stability to ±30ppm available.

**VFB Series (VFBE, VFBG)**  
**Quartz Crystal**  
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**How to Order**

**VFBE or VFBG**



MODE	
Code	Specification
1	Fundamental
3	3 <sup>rd</sup> OT

Calibration Tolerance	
Code	Specification
A	±5ppm
B	±10ppm
C	±15ppm
D	±20ppm
E	±25ppm
F	±30ppm
G	±35ppm
H	±40ppm
I	±45ppm
J	±50ppm
K	±100ppm
L	±150ppm
M	±20ppm
XX	SPECIAL

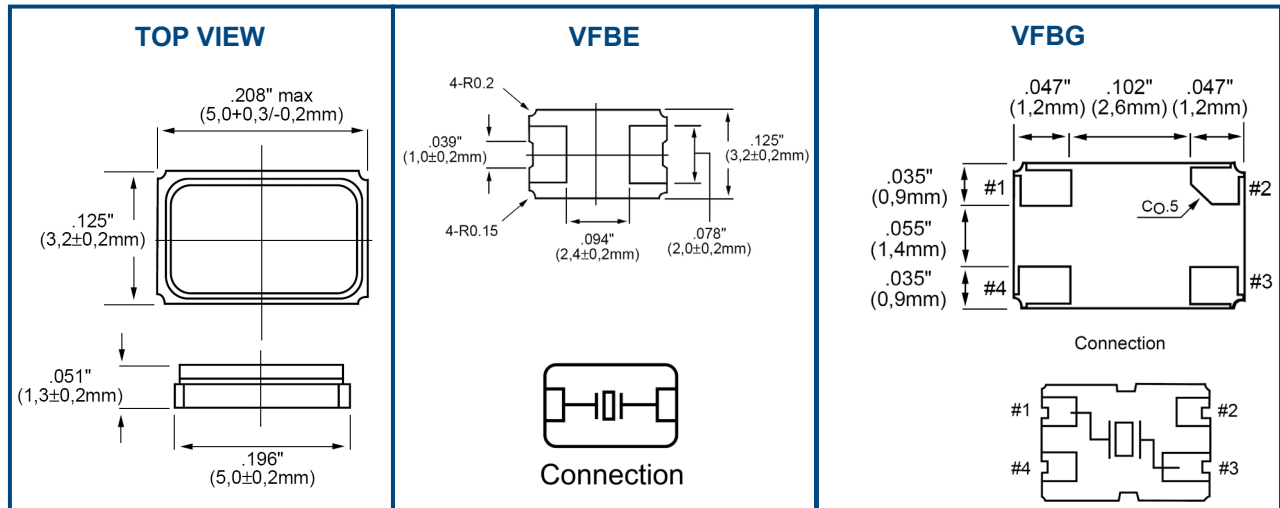
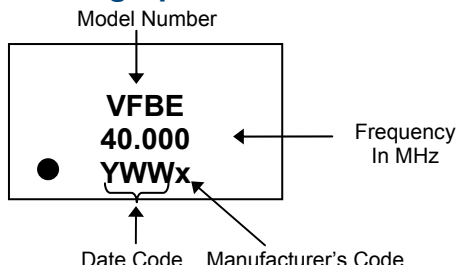
Temperature Stability	
Code	Specification
1	±2ppm
2	±5ppm
3	±10ppm
4	±15ppm
5	±20ppm
6	±25ppm
7	±30ppm
8	±35ppm
9	±40ppm
10	±45ppm
11	±50ppm
12	±100ppm
13	±150ppm
14	±20ppm
00	SPECIAL

Series/Parallel	
Code	Specification
0	Series
ENTER VALUE OF LOAD CAPACITOR FOR PARALLEL CIRCUITS	

Operating Temp. Range	
Code	Specification
A	0°C to 70°C
B	-20°C to 70°C
C	-40°C to 85°C
D	-55°C to 125°C
XX	SPECIAL
E	-10°C to 60°C
F	0°C to 85°C
G	-55°C to 150°C
H	0°C to 50°C

Options	
Code	Specification
5	3 <sup>rd</sup> Lead
MS	Mylar Spacer
TR	Tape + Reel
VS	Vinyl Sleeve
CL	Cut Leads (spec. length)
0	None

**Marking Specification**



**VFB Series (VFBE, VFBG)**  
**Quartz Crystal**  
**3.2 x 5.0mm, Surface Mount**

**Tape & Reel**

