



**FEATURES**

- ✓ SMD Construction
- ✓ Standard 5.0x3.2mm Package Size
- ✓ High Stability Over Temp

Crystals

#blileytakesyoufurther

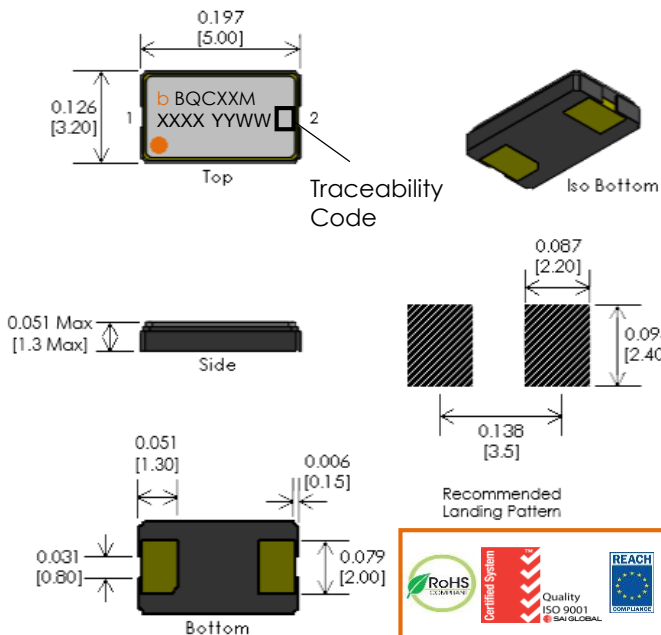
**Part Number Configuration**

BQCSV – M – T

Center Frequency	Mode	Frequency Stability	Operating Temperature	Setting Tolerance	Load Capacitance
8MHz to 80MHz	F: Fund 3: 3 <sup>rd</sup>	B: ±50ppm D: ±20ppm E: ±30ppm F: ±15ppm	B: -20°C to +70°C C: -40°C to +85°C	C: ±15ppm D: ±20ppm S: Specify	A: 8pF F: 18pF G: 20pF Z: Series

\*Not all combinations of options may be possible  
\*\*Other options may be available

**Physical Specifications**



PIN	FUNCTION
1	Crystal
2	Crystal

Tolerances (mm) .X = ± 0.5, .XX = ± 0.2 unless otherwise specified



Notes

- 1) Connection Pads: Gold(10-40 μ in.) over Nickel (100-250 μ in.)
- 2) Weight = 1.5gms typical

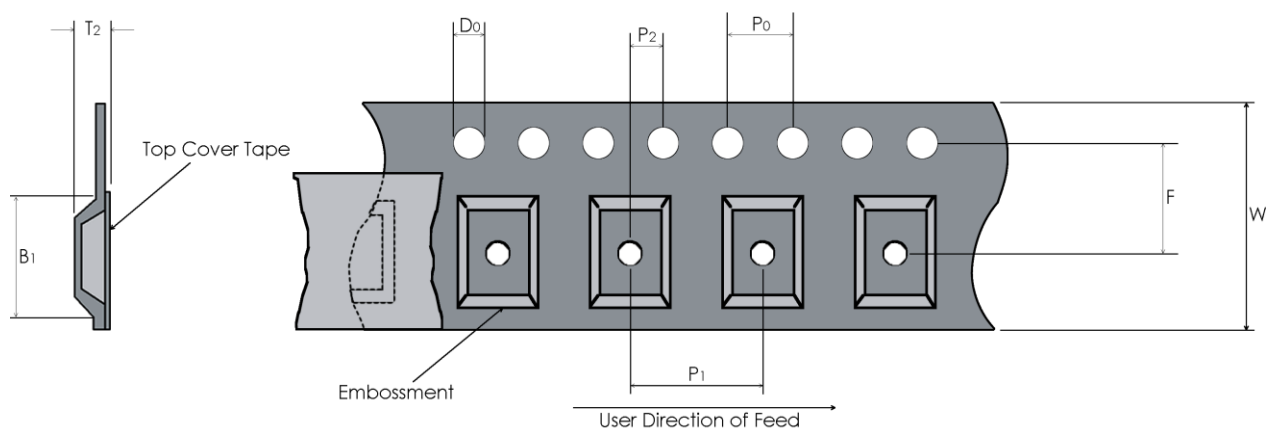
## Performance Specifications

Parameter	Conditions	Fundamental	3 <sup>rd</sup> overtone	Unit
Frequency Range		8.0 – 54.0	40.0– 80.0	MHz
Frequency Tolerance	@ + 25°C	±50 Max (see options)		ppm
Frequency Stability		±50 Max (see options)		ppm
Aging	Max 1 <sup>st</sup> Year	±5.0		ppm
Equivalent Series Resistance (max)	8.0 – 9.0 MHz	140		Ω
	9.0 – 10.0 MHz	120		Ω
	10.0 – 16.0 MHz	60		Ω
	16.0 – 20.0 MHz	40		Ω
	20.0 – 30.0 MHz	30		Ω
	30.0 – 54.0 MHz	25		Ω
	54.0 – 80.0 MHz			60
Insulative Resistance	Min @ 100Vdc ±15Vdc	500		MΩ
Drive Level		10 Typ, 100 Max		μW
C0 (Shunt Capacitance)	Max	7.0		pF
CL (Load Capacitance)	Per Option (typical)	8-20 (see options)		pF
DLD	50nW to 100μW	±10 Max		ppm
RLD	50nW to 100μW	20% Max		Ω
Operating Temp Range		-20 to +70 / -40 to +85		°C
Storage Temp Range		-40 to +90		°C
Sealing Method		Hermetic		

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## Tape and Reel

### Embossed Carrier Dimensions (8mm, 12mm, 16mm, 24mm Tape Only)



Tape Dimensions (mm)								Reel Dimensions (mm)	
W	F	Do	Po	P1	P2	B1	T2	Outside Dia.	Parts / Reel
12	5.5	1.5	4.0	8	2.0	5.5	1.7	180	1,000

## Recommended Reflow Profile

**Reflow Profile:** in accordance to IPC/JEDEC J-STD-020 (Latest Revision)

### Additional Notes:

- This part has been designed for pick and place reflow soldering
- This part may be reflowed once
- This part should not be reflowed in the inverted position

## Packaging

**Packaging:** All packaging must conform to ESD Controls detailed in ANSI/ESD S20.20 (Latest Revision)