

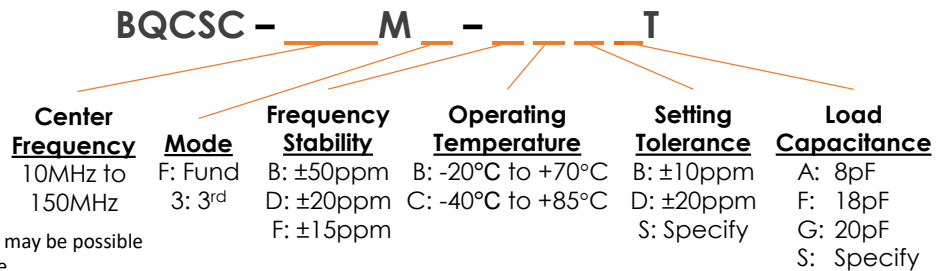
**FEATURES**

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

Crystals

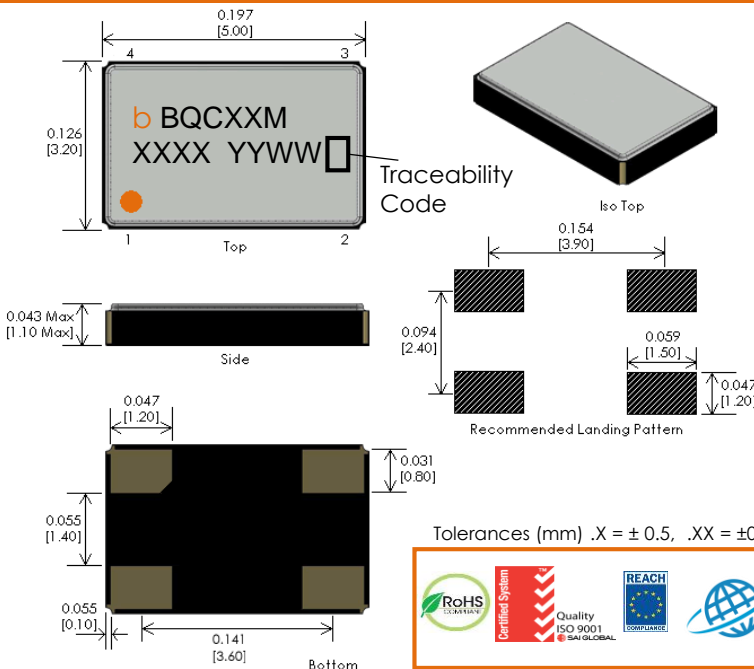
#blileytakesyoufurther

**Part Number Configuration**



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

**Physical Specifications**



PIN	FUNCTION
1	Crystal
2	Ground
3	Crystal
4	Ground

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



Notes

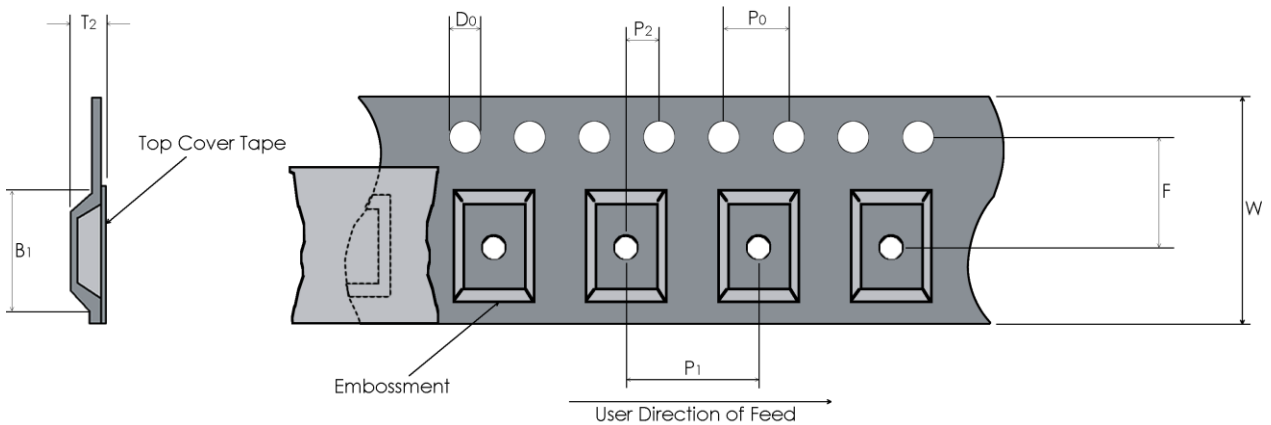
- 1) Connection Pads: Gold(10-40 μ in.) over Nickel (100-250 μ in.)
- 2) Weight = 1.5gms typical

## Performance Specifications

Parameter	Conditions	Fundamental	3 <sup>rd</sup> overtone	Unit
Frequency Range		10.0 – 60.0	40.0 – 150.0	MHz
Frequency Tolerance	@ + 25°C	±50 Max (see options)		ppm
Frequency Stability		±100 Max (see options)		ppm
Aging	Max 1 <sup>st</sup> Year	±3.0		ppm
Equivalent Series Resistance (max)	8.0 – 12.0 MHz	100		Ω
	13.0 – 20.0 MHz	80		Ω
	20.0 – 29.0 MHz	50		Ω
	30.0 – 60.0 MHz	40		Ω
	40.0 – 150.0 MHz		80	Ω
Insulative Resistance	Min @ 100Vdc ±15Vdc	500		MΩ
Drive Level		10 Typ, 100 Max		μW
C0 (Shunt Capacitance)	Max	5.0		pF
CL (Load Capacitance)	Per Option (typical)	6-20 (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		-55 to +125		°C
Sealing Method		Seam Weld		
Moisture Sensitivity Level	1			

## 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)