



SMD Crystal

C7BQ (former FQ7050B) DATASHEET

- Tolerances down to 20 PPM
- Stabilities down to 20 PPM
- Operating Temperature Range up to -40°C ~ +85°C

• C7BQ STANDARD SPECIFICATIONS

| PARAMETERS | MAX (unless otherwise noted) |
|--|------------------------------|
| Frequency Range (Fo) | 6.000 ~ 40.000 MHz* |
| Frequency Tolerance @ 25°C | (See options on page 2) |
| Frequency Stability, ref @ 25°C Over Operating Temp Range | (See options below) |
| Temperature Range | |
| Operating (T _{OPR}) | (See options on page 2) |
| Storage (T _{STG}) | -40°C ~ +85°C |
| Shunt Capacitance (C ₀) | 5 pF |
| Load Capacitance (C _L) | (See options on page 2) |
| Drive Level | 0.5 mW |
| Aging per year | ±5 PPM |
| Termination Finish | Au |
| Seam Method | Resin Sealed |
| Lead (Pb) Free | Yes |
| RoHS/REACH Complaint | Yes |

* Up to 40.000 MHz is available if this device is replacing an existing 5 x 7mm package. For new designs, above 12.000MHz, we recommend the smaller (FQ6035 & FQ5032) packages. Small quantities above 12MHz are only available in the smaller sizes. If you have any questions, please call Customer Support at 1-888-GET-2-FOX.

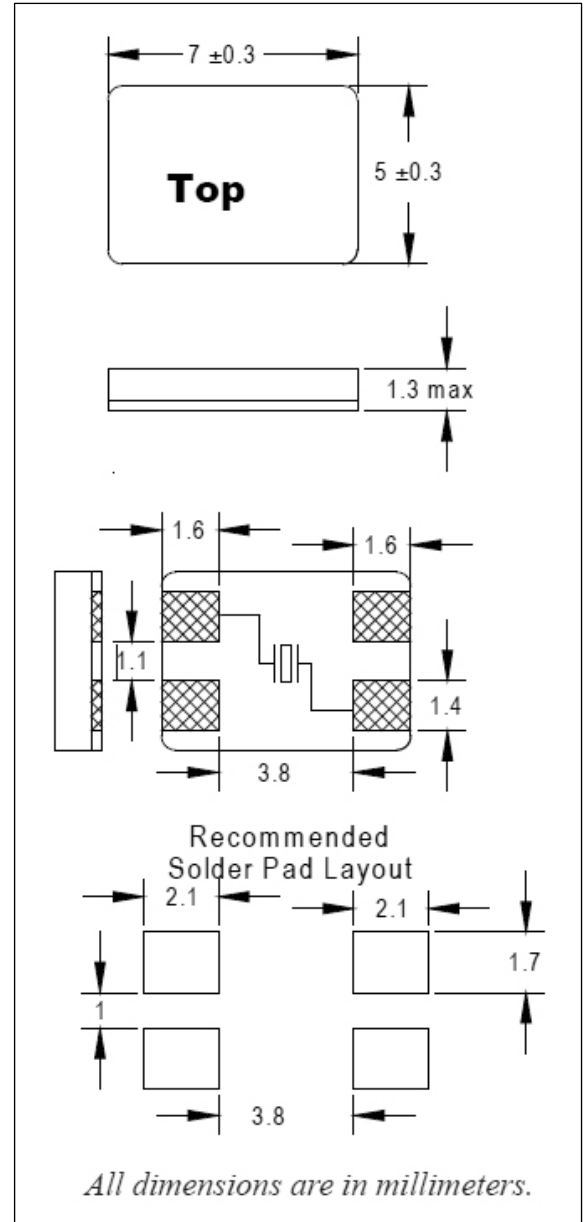
| Frequency Range (MHz) | Operating Mode | Max ESR Ω |
|-----------------------|----------------|-----------|
| 6.000 ~ 15.999999 | Fundamental | 80 |
| 16.000 ~ 40.000 | Fundamental | 50 |

• Available Operating Temperatures and Stabilities

| Stability Temperature | ±20 PPM | ±25 PPM | ±30 PPM | ±50 PPM |
|-----------------------|---------|---------|---------|---------|
| 0 ~+70°C | ○ | ○ | ○ | ○ |
| -20 ~+70°C | ○ | ○ | ○ | ○ |
| -40 ~+85°C | Δ | ○ | ○ | ○ |

Key: O=Available, X=Not Available, Δ=Consult Fox Technical Support

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.



| | | | |
|--|--|---------------------|----------------------------------|
| | Title / Description: C7BQ STANDARD SPECIFICATIONS | | |
| | Drawing Number: 101154 | | Size: A |
| | Part Number: | | Cage: 61429 |
| | Draftperson: CMR | Approved: RB | Revision Date: 03/20/2016 |

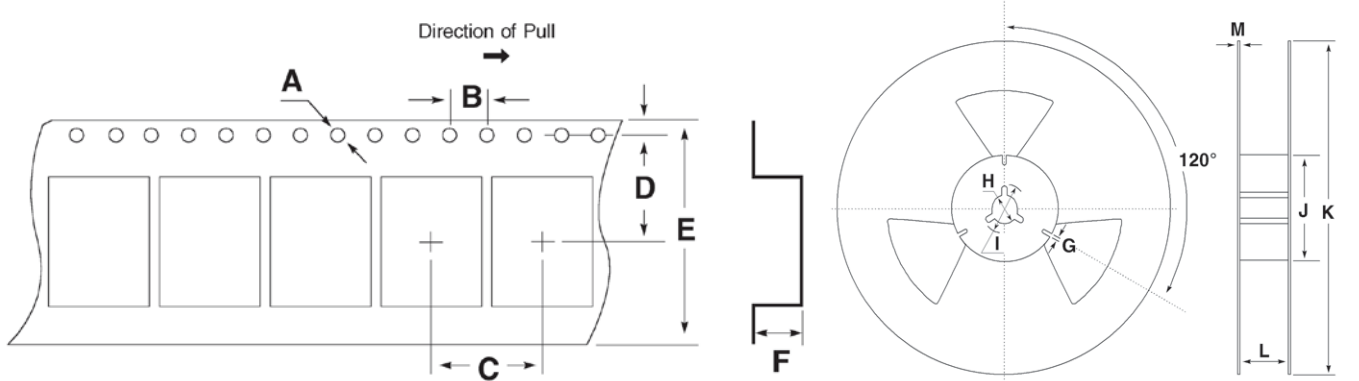


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| • TAPE SPECIFICATIONS (millimeters) | | | | | | | • REEL SPECIFICATIONS (millimeters) | | | | | | |
|-------------------------------------|-----|-----|-----|------|-----|--------------|-------------------------------------|-----|-----|-------|------|------|-----|
| A | B | C | D | E | F | STD Reel QTY | G | H | I | J | K | L | M |
| Ø1.5 | 4.0 | 8.0 | 7.5 | 16.0 | 2.0 | 1,000 | 2.0 | Ø13 | Ø21 | Ø62.5 | Ø178 | 16.4 | 2.0 |



Available Options & Part Identification for SMD Crystal C7BQ*

F C7BQ C C M C 8.000

| F | C7BQ | C | C | M | C | 8.000 |
|------------|---------------------|--|--|---|---|------------------------|
| <u>FOX</u> | <u>Model Number</u> | <u>Tolerance</u> B=50ppm C=30ppm D=25ppm E=20ppm | <u>Stability</u> B=50ppm C=30ppm D=25ppm E=20ppm | <u>Load Capacitance</u> E=10pF G=12pF U=13pF J=15pF K=16pF L=18pF M=20pF | <u>Operating Temperature</u> C=0 to +70C F=-20 to +70C M=-40 to +85C | <u>Frequency (MHz)</u> |

*Not all frequency, tolerance, stability, load, and operating temperature combinations may be available.

| | | |
|--|--|----------------------------------|
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C7BQ
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• C7BQ (Former FQ7050) Standard Crystals

| Part Number | Frequency | Tolerance | Stability | Temp Range | CL |
|-----------------|-----------|------------|------------|--------------|------|
| FQ7050B-6.000 | 6.000000 | +/- 30 ppm | +/- 30 ppm | 0 to +70 C | 20pF |
| FQ7050B-7.3728 | 7.372800 | +/- 30 ppm | +/- 30 ppm | 0 to +70 C | 20pF |
| FQ7050B-8.000 | 8.000000 | +/- 30 ppm | +/- 30 ppm | 0 to +70 C | 20pF |
| FQ7050BR-6.000 | 6.000000 | +/- 30 ppm | +/- 50 ppm | -40 to +85 C | 20pF |
| FQ7050BR-7.3728 | 7.372800 | +/- 30 ppm | +/- 50 ppm | -40 to +85 C | 20pF |
| FQ7050BR-8.000 | 8.000000 | +/- 30 ppm | +/- 50 ppm | -40 to +85 C | 20pF |



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