



**THE DATASHEET OF
FC5BQCCMC25.0-T1**



Features

- Tolerances down to ± 20 PPM
- Stabilities down to ± 10 PPM

| STANDARD SPECIFICATIONS | |
|-------------------------------|------------------------------|
| PARAMETERS | MAX (Unless otherwise noted) |
| Frequency Range | 8.000 ~ 48.000 MHz |
| Frequency Tolerance @ 25°C | (See options below) |
| Frequency Stability, ref 25°C | (See options below) |
| Temperature Range | |
| Operating (T_{OPR}) | (See options below) |
| Storage (T_{STG}) | -40°C ~ +85°C |
| Shunt Capacitance (C_0) | 5 pF |
| Load Capacitance (C_L) | (See options below) |
| Drive Level | 0.5mW |
| Aging per year (@ 25°C) | ± 5 PPM |
| Termination Finish | Ag |
| Seal Method | Resin |
| Lead (Pb) Free | Yes |
| RoHS Compliant | Yes |

| Frequency Range (MHz) | Operating Mode | Max ESR Ω |
|-----------------------|----------------|------------------|
| 8.000000 ~ 11.999999 | Fundamental | 100 |
| 12.000000 ~ 16.000 | Fundamental | 80 |
| 16.000001 ~ 48.000 | Fundamental | 50 |

| DIMENSIONS / MECHANICAL SPECIFICATIONS |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>The diagram shows three views of the crystal: a top view with dimensions 5±0.2 mm (total length) and 3.2±0.2 mm (width), and pin positions 1, 2, 3, 4; a side view showing a height of 1.2 Max mm; a bottom view showing a length of 2.8 mm, pin spacing of 1.1 mm, and a distance of 0.8 mm from the center to the edge; and a recommended solder pad layout with dimensions 2.2 mm (pad length), 1.8 mm (pad width), and 1.3 mm (pad-to-pad spacing).</p> <p>All dimensions are in millimeters.</p> <p>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</p> |

| AVAILABLE OPERATING TEMPERATURES AND STABILITIES* | | | | | | |
|---------------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Operating Temperature | ± 10 PPM | ± 15 PPM | ± 20 PPM | ± 25 PPM | ± 30 PPM | ± 50 PPM |
| 0 ~+70°C | O | O | O | O | O | O |
| -20 ~+70°C | O | O | O | O | O | O |
| -40 ~+85°C | X | X | X | X | O | O |

Key: O = Available, X = Not Available, Δ = Consult Fox Technical Support *Does not imply a stocked part.

FC5BQ

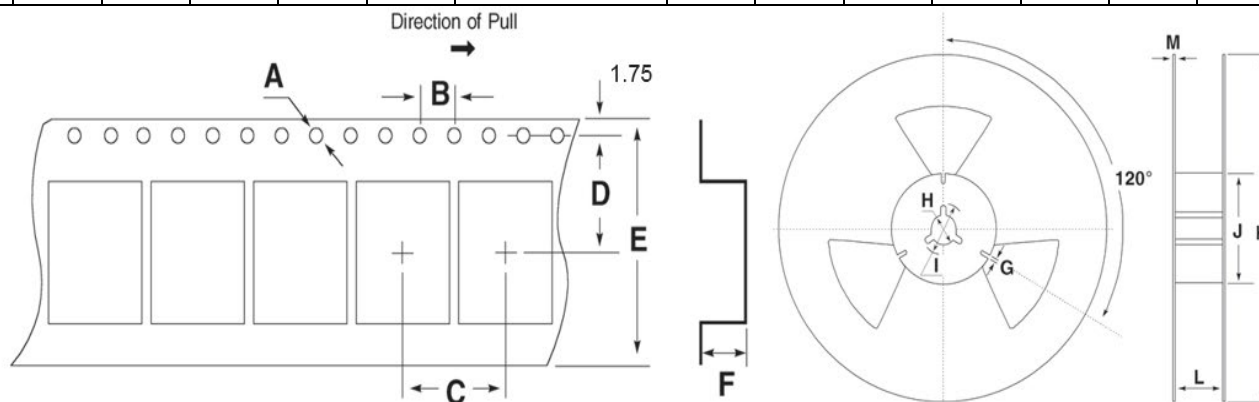
(Former FQ5032B)

5.0mm x 3.2mm

SMD Crystal



| TAPE SPECIFICATIONS (mm) | | | | | | | REEL SPECIFICATIONS (mm) | | | | | | |
|--------------------------|-----|-----|-----|------|-----|-------------|--------------------------|-----|-----|-----|------|------|-----|
| A | B | C | D | E | F | REEL QTY | G | H | I | J | K | L | M |
| ø1.55 | 4.0 | 8.0 | 5.5 | 12.0 | 1.4 | -T1 = 1,000 | 2.0 | ø13 | ø21 | ø62 | ø180 | 13.5 | 2.0 |



Available Options & Part Identification for SMD Crystal C5BQ¹

Sample PN: FC5BQCCMC25.0-T1

| F | C5BQ | C | C | M | C | 25.0 | -T1 |
|------------|---------------------|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------|------------------------|--------------------------------|
| Fox | Model Number | Tolerance | Stability | Load Capacitance² | Operating Temperature | Frequency (MHz) | Values Added Options |
| | | B = ±50 PPM C = ±30 PPM D = ±25 PPM E = ±20 PPM | B = ±50 PPM C = ±30 PPM D = ±25 PPM E = ±20 PPM F = ±15 PPM H = ±10 PPM | V = 7pF D = 8pF E = 10pF G = 12pF J = 15pF K = 16pF L = 18pF M = 20pF | C = 0 to +70°C F = -20 to +70°C M = -40 to +85°C | | Blank = Bulk T1 = 1,000 pcs |

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

2 Listed load capacitances represent the most commonly used. Other load capacitances are available. Contact us for assistance

Reliability Test Conditions

Please contact Abracon Quality Assurance department

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