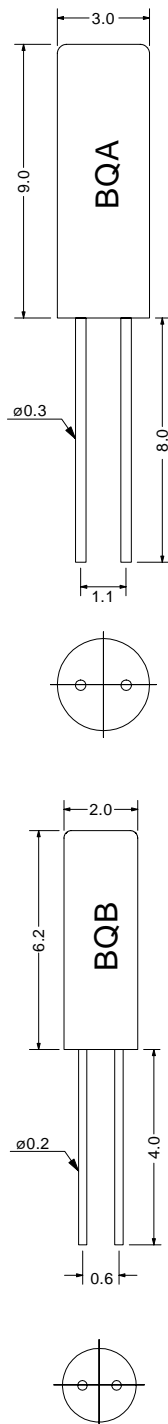


BQ (A,B) series Quartz CRYSTALS



AT-cut CRYSTAL, Micro Tubular

- Applications include hand-held and telecom devices
- Cylindrical type holder
- Wide temperature range
- 3.5 to 70.0 MHz frequency range
- Frequency stability of ± 5 to ± 50 ppm



ELECTRICAL SPECIFICATIONS

Frequency Range	BQA:	1.0 MHz (SL-cut)
	BQA:	3.579545 to 70.0 MHz (AT-cut)
	BQB:	11.05920 to 70.0 MHz (AT-cut)
Operating Temp. Range	See Table 1	
Frequency Tolerance @25°	SL-cut	± 100 ppm
	AT-cut	$\pm 15, \pm 20, \pm 25, \pm 30$ (std), ± 50 ppm
Freq. Stability	See Table 1	
Shunt Capacitance	7.0pF Max.	
Load Capacitance	Series or Parallel (10 to 32pF)	
Drive Level	.1 mW Max.	

EQUIVALENT SERIES RESISTANCE & MODE

Frequency Range		ESR (Ω)	Mode
1.000 (SL Cut) MHz		3000 Ω max	Fundamental
3.5 ~ 3.9 MHz		200 Ω max	Fundamental
4.0 ~ 6.0 MHz		150 Ω max	Fundamental
6.0 ~ 7.0 MHz		100 Ω max	Fundamental
7.0 ~ 9.0 MHz		80 Ω max	Fundamental
9.0 ~ 15.0 MHz		60 Ω max	Fundamental
15.0 ~ 20.0 MHz		50 Ω max	Fundamental
20.0 ~ 27.0 MHz		40 Ω max	Fundamental
27.0 ~ 36.0 MHz		100 Ω max	3rd Overtone
36.0 ~ 70.0 MHz		80 Ω max	3rd Overtone

Frequency Range		ESR (Ω)	Mode
11.05 ~ 12.0 MHz		100 Ω max	Fundamental
12.0 ~ 16.0 MHz		80 Ω max	Fundamental
16.0 ~ 32.0 MHz		60 Ω max	Fundamental
32.0 ~ 70.0 MHz		100 Ω max	3rd Overtone

Table 1

Temp. Range	± 5 ppm	± 10 ppm	± 15 ppm	± 20 ppm	± 30 ppm	± 50 ppm	± 100 ppm
0°C ~ +50°C	•	•	•	•	•	•	
-10°C ~ +60°C		•	•	•	•	•	•SL-cut
-10°C ~ +70°C				•	•	•	
-20°C ~ +70°C					•	•	

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