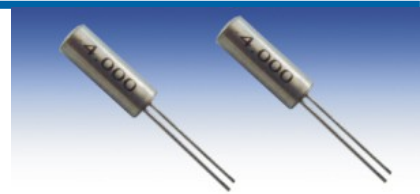


FEATURE

- Wide Frequency range
- High shock tolerance
- Small size
- Reliable frequency stability



APPLICATIONS

- Microprocessor Systems
- Consumer Electronics
- Instrumentation
- Automotive electronics

ELECTRICAL SPECIFICATIONS

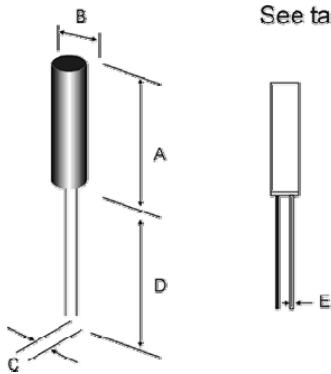
Frequency range	3x10	3x8 & 3x9
	3.579MHz -- 4.000MHz	4.000MHz -- 50.000MHz
Frequency Tolerance (at 25 °C)	±10ppm, ±20ppm, ±30ppm or specify	
ESR	See Below Table	
Oscillation Mode	See Below Table	
Frequency Stability	See Below Table	
Storage Temperature Range	-40 °C to +85 °C	
Operable Temperature Range	-10 °C -- + 60 °C, -20 °C -- + 70 °C, -40 °C -- + 85 °C	
Shunt Capacitance (C0)	5.0pF Typ	
Driver Level (Typical)	10 -- 100µW Max	
Load Capacitance(C _L)	12pF, 16pF, 20pF, or specify	
Insulation Resistance	500Mohm Min (DC 100V)	
Aging @25°C 1 st year (Max)	±3ppm, ±5ppm/year	

REMARK: SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE. PLEASE CONFIRM WITH OUR SALES ENGINEER.

EQUIVALENT SERIES RESISTANCE (ESR) AND OSCILLATION MODE

Frequency MHz	E.S.R (Ω)	Mode	Frequency MHz	E.S.R (Ω)	Mode
3.579~3.999	180Max	Fundamental/AT	7.000~9.999	80Max	Fundamental/AT
4.000~4.499	150Max	Fundamental/AT	10.000~11.999	60Max	Fundamental/AT
4.500~4.999	120Max	Fundamental/AT	12.000~29.999	40Max	Fundamental/AT
5.000~6.999	100Max	Fundamental/AT	30.000~50.000	80Max	3rd Overtone/AT

DIMENSION (Unit: mm)



See table 1

Table 1

MODEL	A	B	C	D	E
3×8mm	8.3	3.1	1.1	10.0	0.3
3×9mm	9.3	3.1	1.1	10.0	0.3
3x10mm	10.3	3.1	1.1	10.0	0.3

Frequency Stability VS Operating Temperature Range

Temperature Range	Frequency Stability					
	±10ppm	±15ppm	±20ppm	±25ppm	±30ppm	±50ppm
-10 °C -- + 60 °C	▲	▲	▲	▲	▲	▲
-20 °C -- + 70 °C	▲	▲	▲	▲	▲	▲
-40 °C -- + 85 °C		▲	▲	▲	▲	▲

PART NUMBER

GMK-AT-38-	16	30	20	40	A
- AT-39-	Frequency	Frequency	Load	E.S.R.	operating temperature range A:-10-60°C B:-20-70°C C:-40-85°C
- AT-310-		tolerance	capacitance		