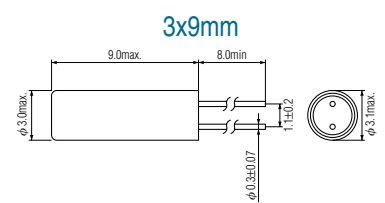
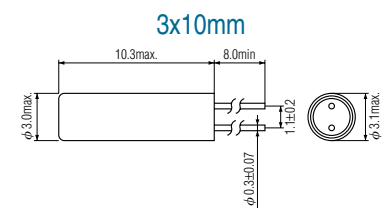
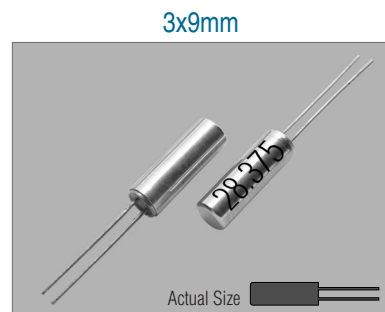
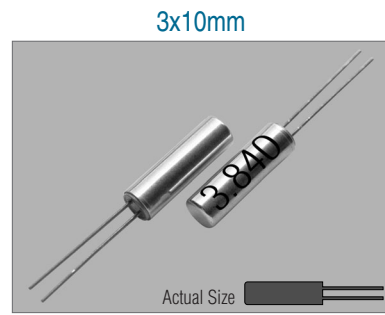


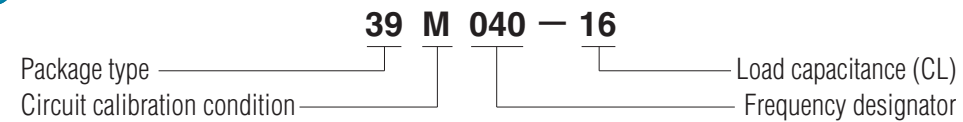
XTAL



STANDARD SPECIFICATIONS

1. Package type 3x10 mm & 3x9 mm
2. Frequency range 3x10 mm : 3.579545 MHz to 4.000 MHz
3x9 mm : 4.000000 MHz to 60.000 MHz
3. Frequency tolerance ±50 ppm at +25°C ±3°C
4. Temperature stability (referred to +25°C) ±50 ppm over -20°C to +70°C (AT-Cut)
±100 ppm over -10°C to +60°C (BT-Cut)
5. Load capacitance (CL) 16 pF, Typical
6. Shunt capacitance (Co) 5 pF max.
7. Drive level (P) 100 μW max. (10 μW for testing)
8. Aging ± 5 ppm max. at +25°C ±3°C per year
9. Cut/Oscillation mode AT-Cut/Fundamental (3.579545 MHz to 36.000 MHz)
AT-Cut/3rd overtone (32.000000 MHz to 60.000 MHz)
BT-Cut/Fundamental (32.000000 MHz to 45.000 MHz)

PART NUMBERING GUIDE

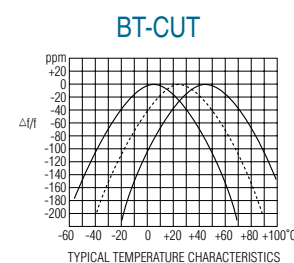
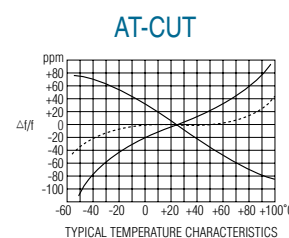


EXAMPLE

SMI PART NO.	Package	Circuit Calibration Condition	Frequency
39M040-16	39 = 3x9 mm	M = Parallel resonance CL = 16 pF	040 = 4.000 MHz
310S0368	310 = 3x10 mm	S = Series resonance	0368 = 3.68640 MHz

PACKAGE DATA

Item	Package	3x10 mm	3x9 mm
Cover		Metal	Metal
Base		Glass	Glass
Sealing		Press-fit	Press-fit
Terminal lead		Alloy (FeNiCo)	Alloy (FeNiCo)
Terminal plating		Tin	Tin
RoHS		Compliant	Compliant



3x10mm & 3x9mm STANDARD FREQUENCIES

FREQUENCY MHz	FREQUENCY DESIGNATOR	MAX EQUIVALENT SERIES RESISTANCE OHMS(Ω) ESR	FREQUENCY MHz	FREQUENCY DESIGNATOR	MAX EQUIVALENT SERIES RESISTANCE OHMS(Ω) ESR
3.579545	035	200	14.318180	143	60
3.686400	0368	200	14.745600	147	60
3.840000	0384	200	15.000000	150	50
4.000000	040	150	15.360000	153	50
4.032000	0403	150	16.000000	160	50
4.096000	0409	150	16.384000	163	50
4.194304	041	150	16.667000	166	50
4.608000	046	150	17.734475	1773	50
4.800000	048	150	18.000000	180	50
4.915200	049	150	18.432000	184	50
5.000000	050	120	19.200000	192	50
5.068800	0506	120	19.660800	196	50
5.242880	052	120	20.000000	200	40
5.333333	053	120	20.480000	204	40
5.529600	055	120	20.945000	209	40
6.000000	060	100	21.425660	214	40
6.144000	061	100	22.000000	220	40
6.400000	064	100	22.118400	221	40
6.650000	066	100	24.000000	240	40
7.372800	073	80	24.576000	245	40
7.680000	076	80	24.960000	249	40
8.000000	080	80	25.000000	250	40
8.192000	081	80	27.000000	270	40
9.216000	092	60	28.375000	283	40
9.537500	095	60	28.636363	2863	40
9.600000	096	60	29.491200	294	40
9.830400	0983	60	29.990000	299	40
10.000000	100	60	30.000000	300	40
10.245000	10245	60	32.000000	320	40
10.368000	103	60	32.256000	3225	40
10.752000	1075	60	33.000000	330	70 (3rd OT)
11.000000	110	60	33.868800	338	40
11.059200	1105	60	35.468950	354	70 (3rd OT)
12.000000	120	60	39.321600	393	40
12.160000	121	60	40.000000	400	40
12.288000	122	60	46.615120	466	70 (3rd OT)
12.800000	128	60	48.000000	480	70 (3rd OT)
13.000000	130	60	50.000000	500	70 (3rd OT)
13.500000	135	60	52.416000	524	70 (3rd OT)
13.560000	1356	60	56.448000	564	70 (3rd OT)
14.000000	140	60			

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