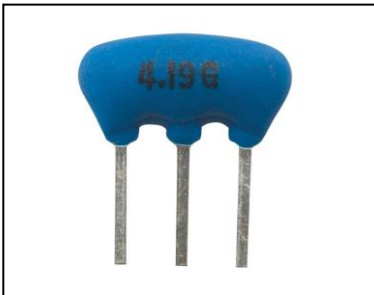


ZTT Series **1.8 to 50MHz**



The ZTA series ceramic resonator is a low profile frequency control product with built-in capacitor. This product has a more competitive price than quartz crystal, that make it a substitute for the quartz crystal when need lower price.

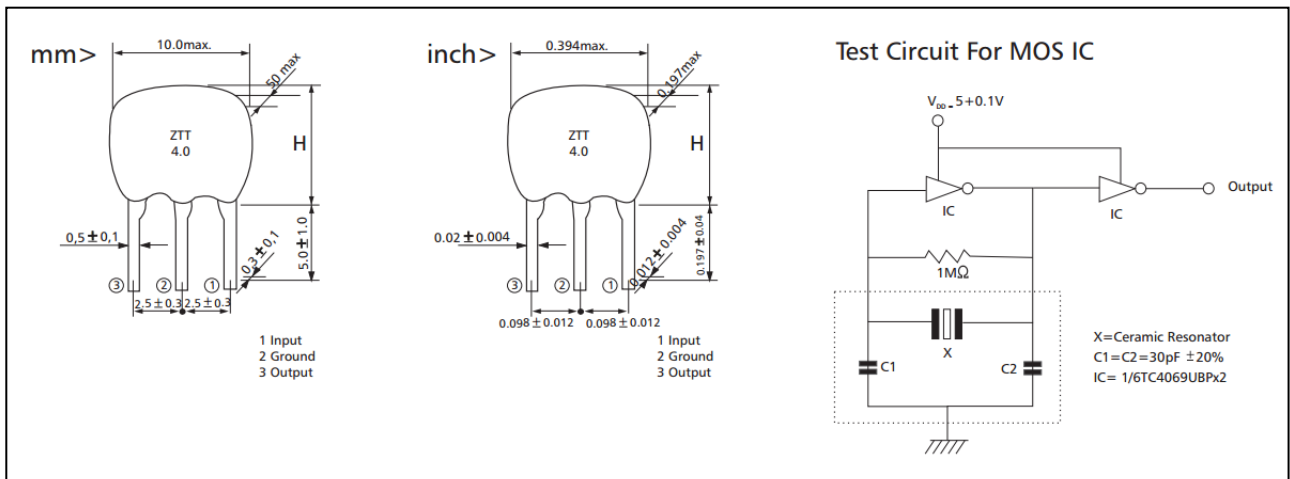
FEATURES

- Lower Cost
- Good Stability
- Wide Frequency Range
- Small compact size

Electrical Specifications

Parameter	Symbol	Condition	Min.	Typ.	Max.	Units
Frequency Range	F_0		1.800	3.58 & 4.00	50.000	MHz
Frequency Tolerance	$\Delta F/F_0$	at 25°C	±0.3	±0.5	±0.5	%
Temperature Stability	T_C	Ref to 25°C	±0.3	±0.5	±0.3	%
Operating Temperature Range	T_{OPR}		-40	-20 to +80	+85	°C
Storage Temperature Range	T_{STG}		-55	-40 to +85	+125	°C
Resonator Resistance	ESR	1.8 to 2.99MHz			80	Ω
		3.0 to 3.49MHz			50	Ω
		3.5 to 5.99MHz			30	Ω
		6.0 to 12.99MHz			25	Ω
		13.0 to 50.0MHz			35	Ω
Insulator Resistance	I_R	100 V _{DC}	500			MΩ
Drive Level	D_L		10	100	1000	μW
Aging	F_a	at 25°C, per year	-0.3	-0.3	-0.3	PPM

Mechanical Dimensions – mm (inch)



Frequency Range	H (mm max)
1.8 to 23.99MHz	10
24 to 31.99MHz	7.5
32 to 50MHz	6.5

Frequency Range	H inch max)
1.8 to 23.99MHz	0.394
24 to 31.99MHz	0.295
32 to 50MHz	0.256