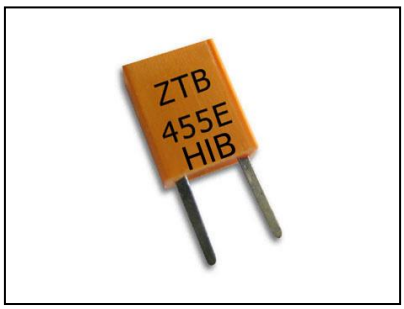
ZTB Series 0.19 to 1.25MHz



The ZTB series ceramic resonator is a low profile frequency control product of low frequency from 190KHz to 1250KHz. This product has a more competitive price than quartz crystal, that make it a substitute for the quartz crystal when need lower price.

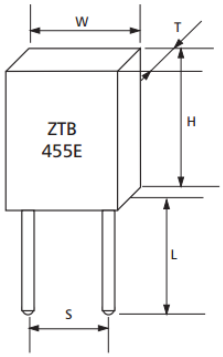
FEATURES

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

Electrical Specifications

Parameter	Symbol	Condition	Min	Typ	Max	Units
Frequency Range	F_0		0.190		1.250	MHz
Frequency Tolerance	$\Delta F/F_0$	at 25ºC	±0.5	±0.5	±0.5	%
Temperature Stability	T_C	Ref to 25ºC	±0.3	±0.3	±0.3	%
Operating Temperature Range	T_{OPR}		-40	-20 to +80	+85	ºC
Storage Temperature Range	T_{STG}		-55	-40 to +85	+125	ºC
Resonator Resistance	ESR	0.19 to 0.509MHz			20	Ω
		0.51 to 0.699MHz			30	Ω
		0.70 to 0.999MHz			70	Ω
		1.00 to 1.250MHz			100	Ω
Insulator Resistance	I_R	100 V_{DC}	500			MΩ
Recommended Capacitors (see test circuit below)		0.19 to 0.249MHz	C1=330, C2=470			pF
		0.25MHz to 0.374MHz	C1=220, C2=470			pF
		0.375 to 0.400MHz	C1=120, C2=470			pF
		0.401 to 1.250MHz	C1=C2=100			pF
Drive Level	D_L		10	100	1000	µW
Aging	F_a	at 25ºC, per year	-0.3	-0.3	-0.3	PPM

Mechanical Dimensions



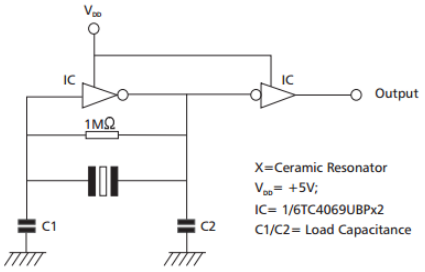
mm>

Frequency Range (MHz)	W Width	T Thicknes	H Height	S Lead Space	L Lead Length
0.190 to 0.249	13.5	3.8	14.7	10.0	8.0
0.250 to 0.374	11.0	3.8	12.2	7.7	7.0
0.375 to 0.400	7.9	3.6	9.3	5.0	7.7
0.401 to 0.699	7.0	3.5	9.0	5.0	6.0
0.699 to 1.250	5.2	2.8	6.8	2.5	5.0

inch>

Frequency Range (MHz)	W Width	T Thicknes	H Height	S Lead Space	L Lead Length
0.190 to 0.249	0.531	0.15	0.579	0.394	0.315
0.250 to 0.374	0.433	0.15	0.48	0.303	0.275
0.375 to 0.400	0.311	0.142	0.366	0.197	0.303
0.401 to 0.699	0.275	0.138	0.354	0.197	0.236
0.699 to 1.250	0.205	0.11	0.268	0.198	0.197

Test Circuit For MOS IC



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