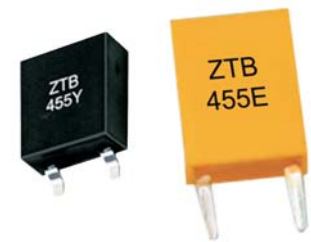


SCOPE

Ceramic Resonators-ZTB(KHz) Series is designed to provide the design engineer with a rugged, relatively low frequency device in the frequency range of 190 KHz to 1,250 KHz. Initial frequency tolerance is $\pm 0.5\%$ which compares very favorably to the nominal $\pm 2\% \sim \pm 3\%$ requirements of one chip microprocessors. GMK Ceramic Resonators-ZTB Series utilizes the area vibration mode of the piezoelectric element.



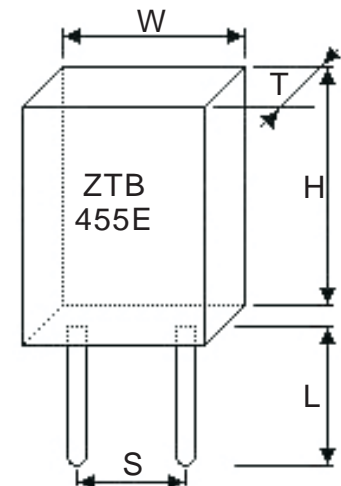
TECHNICAL CHARACTERISTICS

Part Number		Frequency Accuracy (25°C)	Resonant Impedance	Frequency Stability	Aging for Ten Years	Capacitance	
DIP Type	SMD Type					C ₁	C ₂
ZTB190D~249D		$\pm 1\text{KHz}$	≤ 20	$\pm 0.3\%$	$\pm 0.3\%$	330	470
ZTB250D~374D		$\pm 1\text{KHz}$	≤ 20	$\pm 0.3\%$	$\pm 0.3\%$	220	470
ZTB375P~429P	ZTB375~429Y	$\pm 1\text{KHz}$	≤ 20	$\pm 0.3\%$	$\pm 0.3\%$	120	470
ZTB430E~509E	ZTB430~509Y	$\pm 1\text{KHz}$	≤ 20	$\pm 0.3\%$	$\pm 0.3\%$	100	100
ZTB510P~699P	ZTB510~699Y	$\pm 1\text{KHz}$	≤ 30	$\pm 0.3\%$	$\pm 0.3\%$	100	100
ZTB700J~999J	ZTB700~999Y	$\pm 1\text{KHz}$	≤ 70	$\pm 0.3\%$	$\pm 0.3\%$	100	100
ZTB1000J~1250J	ZTB1000~1250Y	$\pm 1\text{KHz}$	≤ 100	$\pm 0.3\%$	$\pm 0.3\%$	100	100

DIMENSIONS

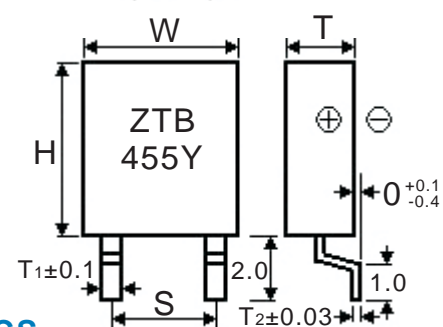
DIMENSIONS OF DIP TYPE

Frequency Range(KHz)	W Width	T Thickness	H Height	S Lead Space	L Lead Length
190 ~ 249	13.5	3.8	14.7	10.0	8.0
250 ~ 374	11.0	3.8	12.2	7.7	7.0
375 ~ 429	7.9	3.6	9.3	5.0	7.0
430 ~ 699	7.0	3.5	9.0	5.0	4.0(6.0)
700 ~ 1250	5.2	2.8	6.8	2.5	3.5(5.0)

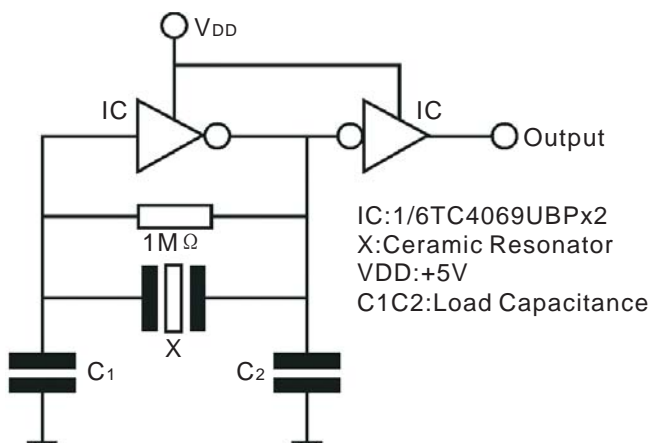


DIMENSIONS OF SMD TYPE

Frequency Range(KHz)	W Width	T Thickness	H Height	S Lead Space	T ₁	T ₂
375 ~ 429	8.0	3.5	9.0	5.0	1.0	0.15
430 ~ 509	7.5	3.3	8.5	5.0	1.1	0.15
510 ~ 699	7.0	3.0	8.5	5.0	1.1	0.15
700 ~ 1250	5.0	2.2	6.0	2.5	0.8	0.12



TEST CIRCUIT



CHARACTERISTICS

