



Ceramic Resonators		Features ◆ Different package sizes ◆ RoHS Compliant ◆ Wide frequency range	
CRB	ZTB		

Electrical Specifications

Item	Specifications					
Type	CRB			ZTB		
Center Frequency Range	190 to 374KHz	375 to 429KHz	430 to 509KHz	510 to 699KHz	700 to 999KHz	1000 to 1250KHz
Series Resistance Max.	20Ω	20Ω	20Ω	30Ω	70Ω	100Ω
Frequency Stability	±1.0KHz	±1.0KHz	±2.0KHz	±2.0KHz	±0.5KHz	±0.5KHz
Stability vs. Temperature	±0.3%					
Operating Temperature	-20°C to +80°C typical, -40°C to +85°C available					
Storage Temperature	-30°C to +85°C typical, -50°C to +105°C available					
Aging Over 10 Years	±0.3% Max.					

Dimensions CRB / ZTB

	A	B	C	D	E	F	G
190.0 ~ 249.0 kHz	13.5	14.7	3.8	8.0	10.0	1.2 max.	0.80
250.0 ~ 374.0 kHz	11.0	12.2	3.8	7.0	7.7	1.2 max.	0.80
375.0 ~ 400.0 kHz	7.9	9.3	3.6	7.0	5.0	1.0 max.	0.65
401.0 ~ 699.0 kHz	7.0	9.0	3.5	5.5	5.0	0.8 max.	0.50
700.0 ~ 1250.0 kHz	5.2	6.8	2.8	3.5	2.5	0.8 max.	0.50

Unit:mm
500pcs per pag

Test Circuit CRB / ZTB (Without built-in capacitors)

VDC: 3.3V or 5.0V
 R: 1 MOhm
 C1/C2: 330 / 470 pF (190 ~ 249 kHz)
 220 / 470 pF (250 ~ 374 kHz)
 120 / 470 pF (375 ~ 400 kHz)
 100 / 100 pF (401 ~ 1250 kHz)