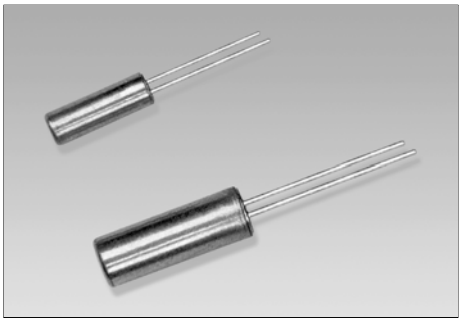
• ETDB Series DT-38 32.768KHz Crystal



The tuning fork type quartz crystal provides ultimate in size, performance, and economic trade-offs. So it is used as a clock source in communication equipment, measuring instrument, microprocessor and other time management application.

FEATURES

- Miniature Package
- Low Cost
- KHz Frequency
- Tight Tolerance

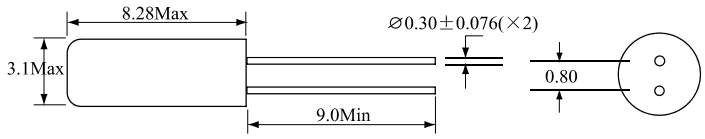
Electrical Specifications

Item / Type		ETDB	
Frequency Range	F0	32.768KHz(30~100KHz)	
Load Capacitance	CL	12.5pF	
Frenqency Tolerance	△F/ F0	±10ppm,±20ppm,±100ppm(At 25℃)	
Equivalent Series Resistance	ESR	50KΩ max.	35KΩ max.
Temperature Cofficient	K	-0.042ppm*(△℃)^2 max.	
Operating Temperature Range	T_{OPR}	−10~+60℃	
Storage Temperature Range	T_{STG}	−20~+70℃	
Shunt Capacitance	C0	0.85pF typ.	
Motional Capacitance	C1	2fF typ.	
Insulator Resistance	IR	500MΩ min. (At 100V_{DC})	
Drive Level	DL	1μW max.	
Aging	Fa	±5ppm max. (At 25℃,Frist year)	
Packing Unit		1000pcs/bag	

***Please contact us for inquiries regarding other Specifications*

Mechanical Dimensions(mm)

DT-38



To determine frequency stability , use parabolic curvature(k).
for example: What is stability at 45℃

1).change in T(℃)=45-25=20℃
2).Change in frequency = -0.042ppm*(△℃)^2
= -0.042ppm*(20)^2
= -16.8ppm(max)

Parabolic Temperature Curve