



# TUNING FORK QUARTZ CRYSTAL UNITS



## • ETDG Series 2.0\*1.2 32.768KHz Crystal

### FEATURES

- Miniature Package
- Low resistance
- 32.768KHz Frequency
- Tight Tolerance



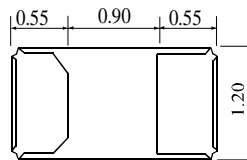
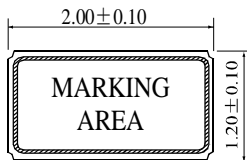
The SMD type quarda crystal provides ultimate in size, performance, and economic trade-offs. So it is used as a clock source in communication equipment, measuring instrument, microprocessor and other time management application.

### Electrical Specifications

Item	Type	ETDG
Frequency Range	F0	32.768KHz
Load Capacitance	CL	12.5pF(7.0pF, 9.0pF Option)
Frequency Tolerance	$\Delta F/F_0$	$\pm 20\text{ppm}(\text{At } 25^\circ\text{C})$
Equivalent Series Resistance	ESR	80K $\Omega$ Max.
Temperature Coefficient	K	$-0.035\text{ppm}*(\Delta^\circ\text{C})^2 \pm 10\%$
Turnover Temperature	T <sub>0</sub>	25 $\pm$ 5 $^\circ\text{C}$
Operating Temperature Range	T <sub>OPR</sub>	-40~+85 $^\circ\text{C}$
Storage Temperature Range	T <sub>STG</sub>	-55~+125 $^\circ\text{C}$
Shunt Capacitance	C <sub>0</sub>	2.0pF Max.
Insulator Resistance	IR	500M $\Omega$ min. (At 100V <sub>DC</sub> )
Drive Level	DL	0.5 $\mu\text{W}$ Max.
Aging	Fa	$\pm 3\text{ppm max. (At } 25^\circ\text{C, First year)}$
Packing Unit		3000pcs/reel

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

### Mechanical Dimensions(mm)



Recommended Solder Pattern

