

# TSQ-3X8

## FEATURES

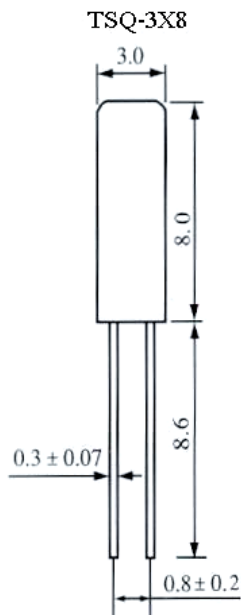
Tuning Fork type crystal generates time keeping clock signal with lowpower consumption and is applied to wide range of equipment. Such as watch & clock, Audio/Video, Home Application and so on..



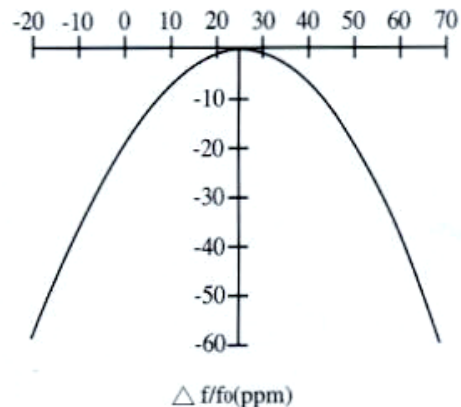
### Electronic Specifications

Partameter	Symb	Units	Typical	Min	MAX	Condition
Frequency Range	fo	KHz	32.768	25.6	200	
Frequency Tolerance	$\Delta f/fo$	ppm	$\pm 20$	$\pm 5$	$\pm 100$	At25°C
Temperature Coefficient	$\Delta f/fo$	ppm/(°C) <sup>2</sup>	-0.034 $\pm$ 0.006			
Turnover Temperature	Tm	°C	25 $\pm$ 5			
Operating Temperature Range	T <sub>OPR</sub>	°C	-10~+60			
Storage Temperature Range	T <sub>STG</sub>	°C	-40~+85			
Quality factor			90,000TYP			
Series Resistance	R1	K $\Omega$	35	20	40	At25°C
Shunt Capacitance	CO	pF	1.80(JU308) 1.35(JU206)			
Load Capacitance	C1	pF	0.0030TYP			
Motional Capacitance	C <sub>L</sub>	pF	12.5	Please specify		
Insulator Resistance	IR	M $\Omega$		500		DC100V $\pm$ 15V
Drive Level	DL	$\mu$ W			1	
Capacitance ratio	r		450TYP			
Aging	$\Delta f/fo$	ppm		$\pm 5.0$		At25°C $\pm$ 3°C

### Mechanical Dimensions (mm)



### Parabolic Temperature Curve



To determine frequency stability, use parabolic curvature