

## CM200S Series (8.0x3.8x2.5mm)

## 32.768KHz



The tuning fork type quartz crystal provides ultimate in size, performance and economic tradeoffs. So, it is used as a clock source in communication equipment, measuring instruments, microprocessors and other time management applications.

### FEATURES

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

### Electrical Specifications

Parameter	Symbol	Condition	Min	Typ	Max	Units
Frequency Range	$F_0$		32.768		32.768	KHz
Frequency Tolerance	$\Delta F/F_0$	at 25°C	±5	±20	±100	PPM
Temperature Stability	$T_C$	Ref to 25°C			-0.034±0.005	PPM/(°C) <sup>2</sup>
Operating Temperature Range	$T_{OPR}$		-40	-10 to +60	+85	°C
Storage Temperature Range	$T_{STG}$		-40		+85	°C
Shunt Capacitance	$C_0$			1.3	2	pF
Load Capacitance	$C_L$	Customer Specified	6	12.5	Series	pF
Insulator Resistance	$I_R$	100 V <sub>DC</sub>	500			MΩ
Drive Level	$D_L$				1.0	μW
Aging	$F_a$	at 25°C, per year	-3.0		+3.0	PPM
Equivalent Series Resistance (ESR)	$R_s$				50	KΩ

### Mechanical Dimensions – mm (inch)

