5.0 x 3.2mm

2.5V CMOS 32.768kHz

KD



5.0 x 3.2mm Ceramic SMD

Product Features

- •32.768 kHz
- •2.5V CMOS compatible logic levels
- •Low power standby mode (< $10\mu A$)
- •Low power active mode (< 0.25mA typ.)
- Designed for standard reflow and washing techniques
- Pb-free and RoHS/Green compliant

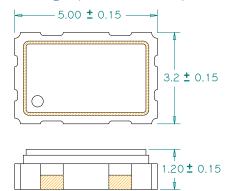
Product Description

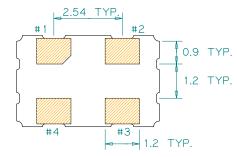
The KD Series is a real time clock oscillator that achieves superb stability over a broad range of operating conditions. The output clock signal is compatible with LVCMOS/LVTTL logic levels. The device, available on tape and reel, is contained in a 5.0 x 3.2mm surface-mount ceramic package.

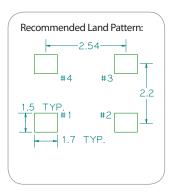
Applications

Real-Time Clock Oscillator

Package: (Dimensions are in mm)



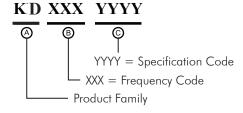




Pin Functions:

Pin	Function				
1	OE Function				
2	Ground				
3	Clock Output				
4	V_{DD}				

Part Ordering Information:



Following the above format, SaRonix-eCera part numbers will be assigned upon confirmation of exact customer requirements.

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KD Series 2.5V CMOS kHz Crystal Oscillator 5.0 x 3.2mm

Electrical Performance

Parameter	Min.	Тур.	Max.	Units	Notes
Output Frequency		32.768		kHz	As specified
Supply Voltage	+2.25	+2.50	+2.75	V	
Supply Current, Output Enabled		0.25	0.4	mA	15 pF load
Supply Current, Standby Mode			10	μA	Output Hi-Z
Frequency Stability			±20 to ±50	ppm	See Note 1 below
Operating Temperature Range	-20		+70	°C	As specified
	-40		+85		As specified
Output Logic 0, V _{OL}			0.1 V _{DD}	V	
Output Logic 1, V _{OH}	0.9 V _{DD}			V	
Output Load			15	pF	See Note 2 below
Duty Cycle	45		55	%	measured 50% of V _{DD}
Rise and Fall Time			15	ns	measured 10/90% of V_{DD}

Notes:

2. For specifications other than those listed, please contact sales.

Output Enable / Disable Function

Parameter	Min.	Тур.	Max.	Units	Notes
Input Voltage (pin 1), Output Enable	0.7 V _{DD}			V	or open
Input Voltage (pin 1), Output Disable (low power standby)			0.3 V _{DD}	V	Output is Hi-Z
Internal Pullup Resistance		470		kΩ	
Output Disable Delay			100	ns	
Output Enable Delay			10	ms	

Absolute Maximum Ratings

Parameter	Min.	Тур.	Max.	Units	Notes
Storage Temperature	-55		+125	°C	

For the latest product information visit: http://www.pericom.com/products/timing/oscillators/KD2.5/

For test circuit go to: http://www.pericom.com/pdf/sre/tc_cmos2.pdf

For soldering reflow profile and reliability test ratings go to: $\underline{\text{http://www.pericom.com/pdf/sre/reflow.pdf}}$

For tape and reel information go to: http://www.pericom.com/pdf/sre/tr_5032_xo.pdf



All specifications are subject to change without notice.

^{1.} As specified. Stability includes all combinations of operating temperature, load changes, rated input (supply) voltage changes, initial calibration tolerance (25°C), aging (1 year at 25°C average effective ambient temperature), shock and vibration.