

KV1400AA Series

14 DIP, 5.0 Volt, Sinewave, VCXO



- Former **Champion TECHNOLOGIES, INC.** Product
- Phase Locked Loops (PLL's) & Clock Recovery where phase noise integrity is critical

Ordering Information

00.0000 MHz

KV1400AA X

Product Series _____

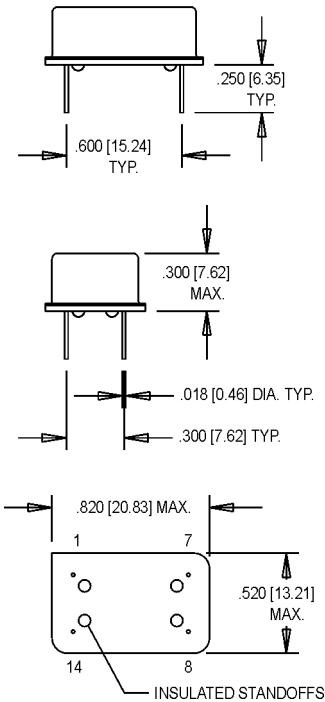
Temperature Range _____

Blank: 0°C to +70°C

M: -40°C to +85°C

Frequency (customer specified) _____

All dimensions in inches [mm].



Pin Connections

PIN	FUNCTION
1	Voltage Control
7	Ground/Case Ground
8	Output
14	+Vdd

PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition	
Frequency Range	F	70		200	MHz		
Frequency Stability:	$\Delta F/F$						
Overall		Inclusive of Calibration, Temperature, Voltage, Load, and Aging					
0°C to +70°C			±35		ppm		
-40°C to +70°C			±40		ppm		
Pullability (Typical)		±70		±150	ppm		
Guaranteed APR				±35	ppm		
Linearity				10	%		
Modulation Bandwidth	fm	>10			kHz	±3dB	
Control Voltage	Vc	0.5	2.5	4.5	V		
Transfer Function		Positive					
Input Impedance		>50K Ω				@ 10 kHz	
Operating Temperature	Ta	-40		+85	°C		
Storage Temperature	Ts	-40		+85	°C		
Input Voltage	Vdd	4.75	5.0	5.25	V		
Input Current	Idd			40	mA		
Leakage Current				200	mA	(Pin 1, Vc = 4.5V)	
Start up Time				10	ms		
Output Signal		Sinewave					
Load				50	Ω		
Output Power				+3±3	dBm		
Harmonics				-20	dBc		
Sub-Harmonics & Spurious Modes				-70	dBc		
Phase Noise (Typical)		100 Hz	1 kHz	10 kHz	100 kHz	dBc/Hz	
		-60	-95	-125	-145	Offset from carrier	
Temperature Cycle		MIL-STD-883, Method 1010, Condition B			-55°C to +125°C; Air-to-Air; 100 cycles; 10 min. dwell		
Mechanical Shock		MIL-STD-883, Method 2002, Condition B			1500 g's		
Vibration		MIL-STD-883, Method 2007, Condition B			20-2000 Hz; 0.06 inch; 15 g's; 3 planes		
Humidity Steady State		MIL-STD-202, Method 103			40°C; 90%-95% R.H.; 56 days		
Thermal Shock		MIL-STD-883, Method 1011.7, Cond. B			100°C to 0°C; Water-to-Water; 15 cycles		
Electrostatic Discharge		MIL-STD-883, Method 3015, Class II			2 KV to 4 KV Threshold		
Solderability		MIL-STD-883, Method 2022.2			Solder dip; Meniscograph Criteria		
Hermeticity		MIL-STD-883, Method 1014.8, Cond. A1			Mass spectro. 2 x 10-8 atoms. CC/sec He		
Resistance to Soldering		See Page 147					
Lead Integrity		MIL-STD-883, Mtd. 2004.5, Cond. A,B1			Lead tension & bend stress		
Marking Permanence		MIL-STD-883, Method 2015.8			Resistance to solvents		
Life Test		MIL-STD-883, Method 1005.6			125°C, powered, 1000 hours minimum		

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