



Features and Benefits

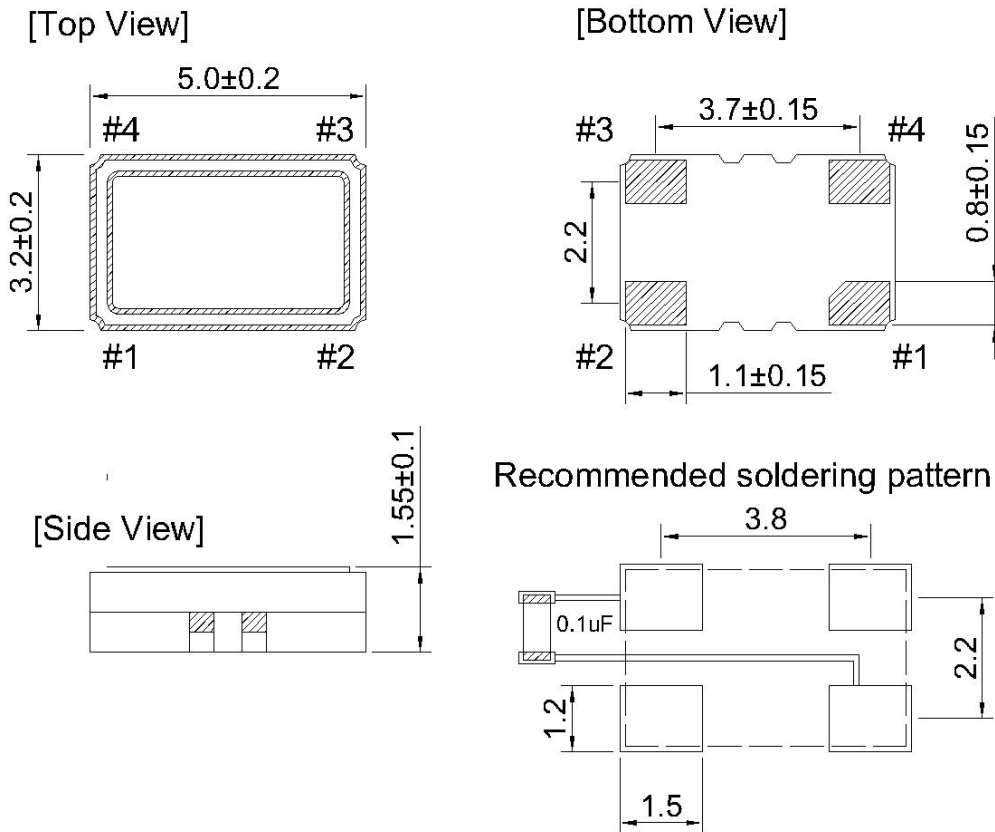
Better than ± 0.28 PPM from -40°C to $+85^{\circ}\text{C}$
10MHz clipped sine wave output
3.3V supply, 3.5mA maximum current

Typical Applications

Mobile SATCOM
Mobile Radio
Harsh Environments
Femto-cell

Mechanical Drawing & Pin Connections

Drawing No: MD140051-1



Pin	Function
#1	Control Voltage
#2	GND
#3	Output
#4	Supply Voltage

Unit : mm



Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Nominal Frequency	F _{nom}			10.000000		MHz	
Output Wave Form			Clipped sine wave				
Output Voltage Level			0.8		2.0	Vp-p	
Output Load				10//10		Kohm//pF	
Startup Time					2.0	ms	
Power Supply							
Supply Voltage	V _{cc}		3.135	3.3	3.465	V	
Supply Current					3.5	mA	
Frequency Control*							
Control Voltage Range	V _c		0.5	1.5	2.5	V	
Tuning Range		Reference to VCON at 1.5V	+/-5			ppm	Positive slope
Linearity					10	%	
V _{con} Input Impedance			100			Kohm	
Frequency Stability							
VS. Temperature		From -40°C to +85°C Ref. to the midpoint between min. and max. frequency value			+/-0.28	ppm	
Tolerance at +25°C		Frequency at +25°C, 1hour after 2 times reflow			+/-2.0	ppm	
VS. Supply Voltage		+/-5% change at 25°C			+/-0.2	ppm	
VS. Load Change		+/-10% change at 25°C			+/-0.2	ppm	
Year Aging		First year			+/-1.0	ppm	
Phase Noise (typ.)		@10 Hz		-100		dBc/Hz	
		@100 Hz		-125			
		@1 KHz		-145			
		@10 KHz		-155			
		@100 KHz		-158			
Environmental Conditions							
Parameter	Reference Std.			Test Condition			
Operating Temperature range	-40°C to +85°C						
Storage Temperature range	-55°C to +125°C						
Vibration Test	MIL-STD-883 2007 Condition A JESD22-B103 Condition 1			10 – 2000Hz, 1.52mm, 20g, each axis 4hrs			
Thermal Shock	MIL-STD-883 1010 Condition B JESD22-A104 Condition B			-55°C, 125°C; soak time is 10mins, with total 200 cycles.			
Mechanical Shock	MIL-STD-883 2002 Condition B JESD22-B104 Condition B			1500G, half-sine, 0.5ms, each axis for 3 times			