

Features and Benefits

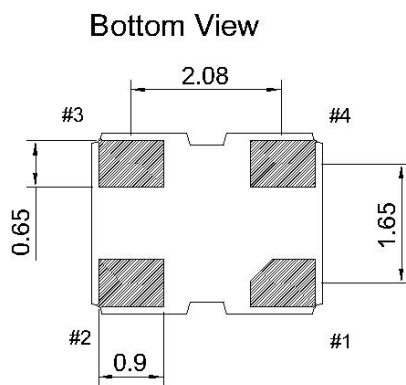
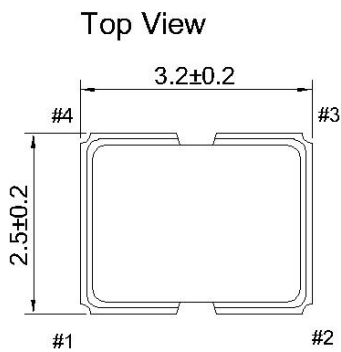
-55°C to +125°C operating temperature range
16MHz CMOS output
3.3V supply, 15.0mA maximum current

Typical Applications

Petroleum Exploration Field
Mobile Radio
Hand-carry Instrument
Femto-cell

Mechanical Drawing & Pin Connections

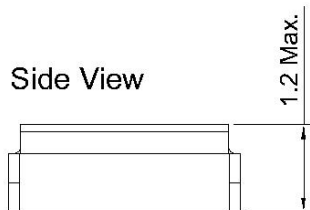
Drawing No: MD150038-1



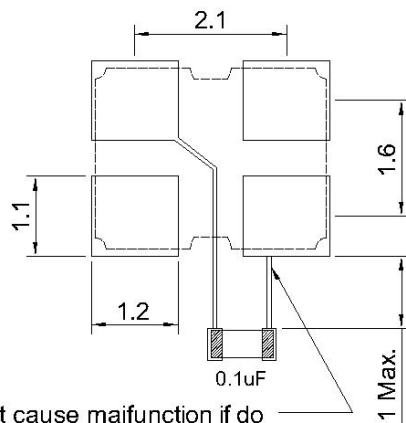
Pin Function

Pin	Function
#1	TRI-STATE
#2	GND
#3	Output
#4	VDD

Unit : mm



Recommended soldering pattern

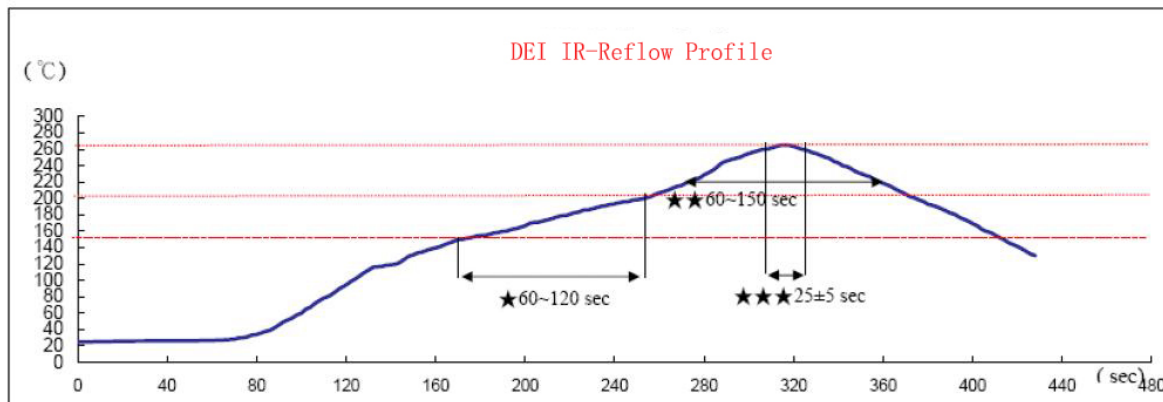


Might cause maifunction if do not follow the recommendation

Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Nominal Frequency	F _{nom}			16.000000		MHz	
Output Wave Form			CMOS				
Output Voltage Level High			2.97			V	
Output Voltage Level Low					0.33	V	
Output Load Capacitance					15	pF	
Duty Cycle			45	50	55	%	
Rise and Fall Times					3.0	ns	
Start Time					2.0	ms	
Tri-State	Output Active	Pin 1 Tri-state	2.31			V	
	Output in High-impedance state				0.99	V	
Power Supply							
Supply Voltage	V _{cc}		2.97	3.3	3.63	V	
Supply Current		At maximum supply voltage			15.0	mA	
Frequency Stability							
Frequency Stability(Over All)		Frequency stability includes frequency tolerance@+25°C and frequency stability vs. operating temperature range and voltage variance and load variance and first year aging			+/-50	ppm	
Phase Jitter		Pk-Pk			40	pSec.	
Phase Noise (typ.)		@ 100 Hz		-110		dBc/Hz	
		@ 1 KHz		-140			
		@ 10 KHz		-155			
		@ 100 KHz		-160			
Parameter		Reference Std.	Test Condition				
Operating Temperature range		-55°C to +125°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				

Recommended IR Reflow Profile



Reference Standard: JEDEC-STD 020

Test conditions: ★Pre-heating : 150°C to 200°C, 60~120secs.

★★Heating : 217°C, 60~150sec.

★★★Peak temperature : 260±5°C, 25±5sec.