

APPROVAL SHEET

Issued No. : _____

DESCRIPTION : SMD 7050 XO CMOS

NOMINAL FREQ. : 16.000000M

P/N : _____

MODEL : 16.000000MHz 3.3V 20PPM

REVISION : 1

DATE : 03/24/2025

QA	Checked	Prepared

CUSTOMER : _____

CUSTOMER P/N : _____

Customer Signature
Approved:
Date:

■ ELECTRICAL CHARACTERISTICS

➤ FREQUENCY

	Parameter	Min.	Typ.	Max.	Units	Test Condition
1-1	Nominal Frequency	16.000000			MHz	
1-2	Frequency stability	-20		20	Ppm	25°C
		-20		20	Ppm	-40-85°C
	1-2-4 Aging	-3		+3	ppm	Frequency drift in first year
1-3	Operating Temperature range	-40		85	°C	The operating temperature range over which the frequency stability is measured.
1-4	Storage Temperature range	-55		125	°C	

➤ POWER SUPPLY

	Parameter	Min.	Typ.	Max.	Units	Test Condition
2-1	Supply voltage	3.15	3.3	3.45	V	
2-2	Current			10	mA	At maximum supply voltage

➤ OUTPUT

	Parameter	Min.	Typ.	Max.	Units	Test Condition
3-1	Output waveform	CMOS				
3-2	Duty Cycle	45	50	55	%	
3-3	Start Time			5	mSec	
3-4	Transition Time : Rise/Fall Time			5	nSec	
3-5	Output	Output High(Logic “1”)	90%Vdd		V	
3-6	Level	Output Low(Logic “0”)		10%Vdd	V	
3-7	Output Load			15PF	pF	
3-8	Tri-State	Output Active	0.7Vdd		V	Pin 1 Tri-state
3-9		Output in High-Impedance state		0.3Vdd	V	

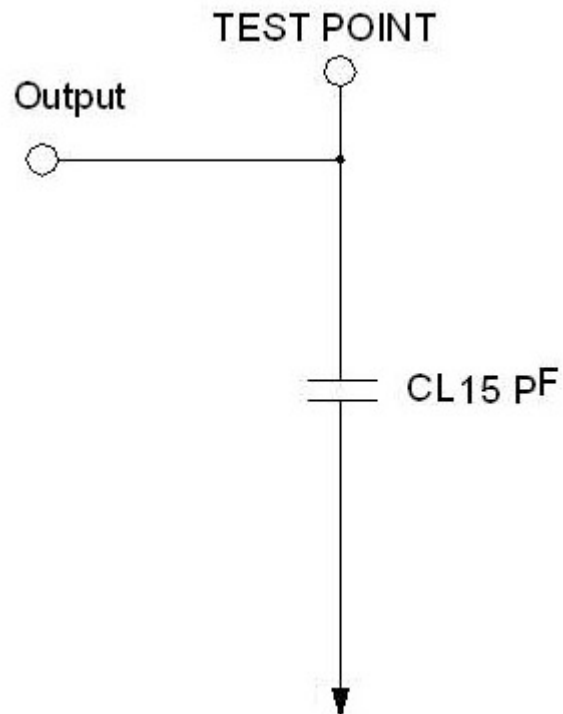
■ CUSTOMER SPECIAL REQUIREMENT

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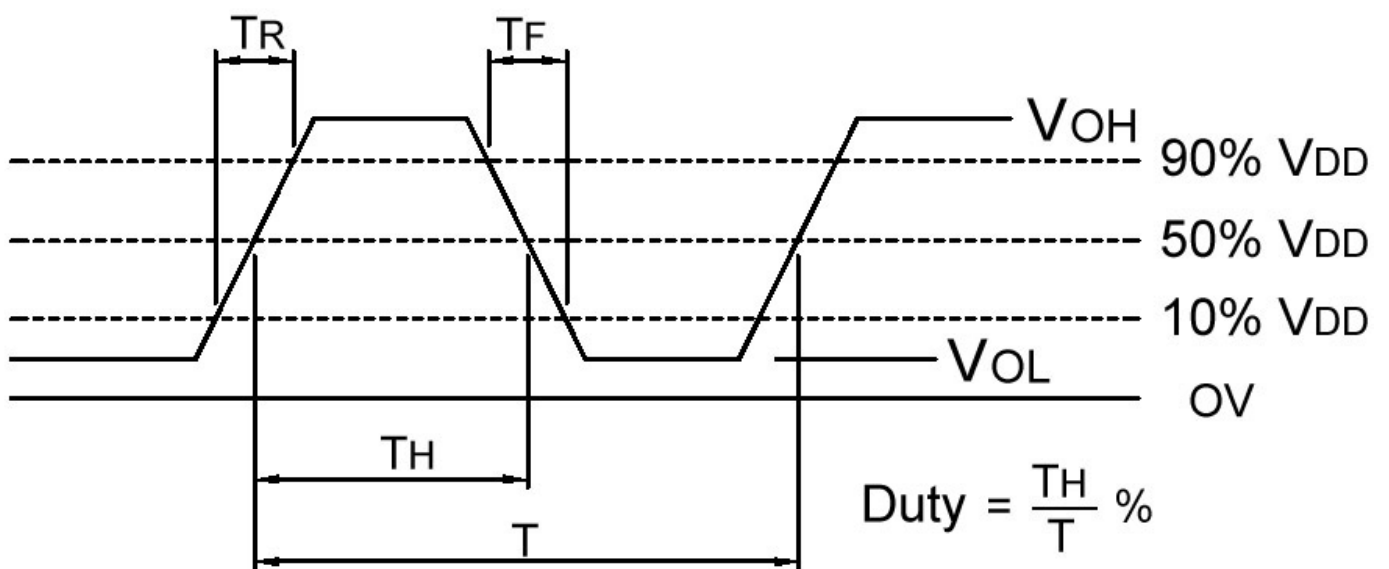
■ ENVIRONMENTAL

	Parameter	Reference Std.	Test Condition
5-1	Vibration Test	MIL-STD-883 2007 Condition A	10~2000Hz, 1.52mm, 20g, each axis for 4 hrs
		JESD22-B103 Condition 1	
5-2	Thermal Shock	MIL-STD-883 1010 Condition B	-55℃, 125℃; soak time is 10 mins, with total 200 cycles
		JESD22-A104 Condition B	
5-3	Mechanical Shock	MIL-STD-883 2002 Condition B	1500g, half-sine, 0.5ms, each axis for 3 times.
		JESD22-B104 Condition B	

■ TEST CIRCUIT (CMOS LOAD)

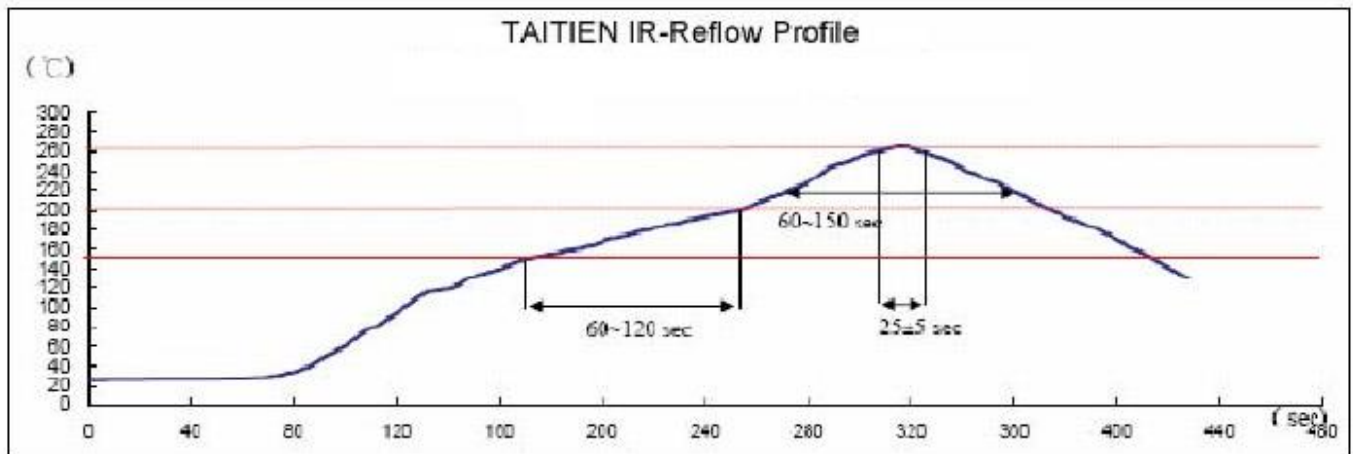


■ OUTPUT WAVEFORM (CMOS LOAD)



■ RECOMMENDED IR REFLOW PROFILE

➤ IR REFLOW PROFILE OF CERAMIC SMD PRODUCTS FOR Pb FREE PROCESS



IR-Reflow Test

Reference Standard : JEDEC-STD 020

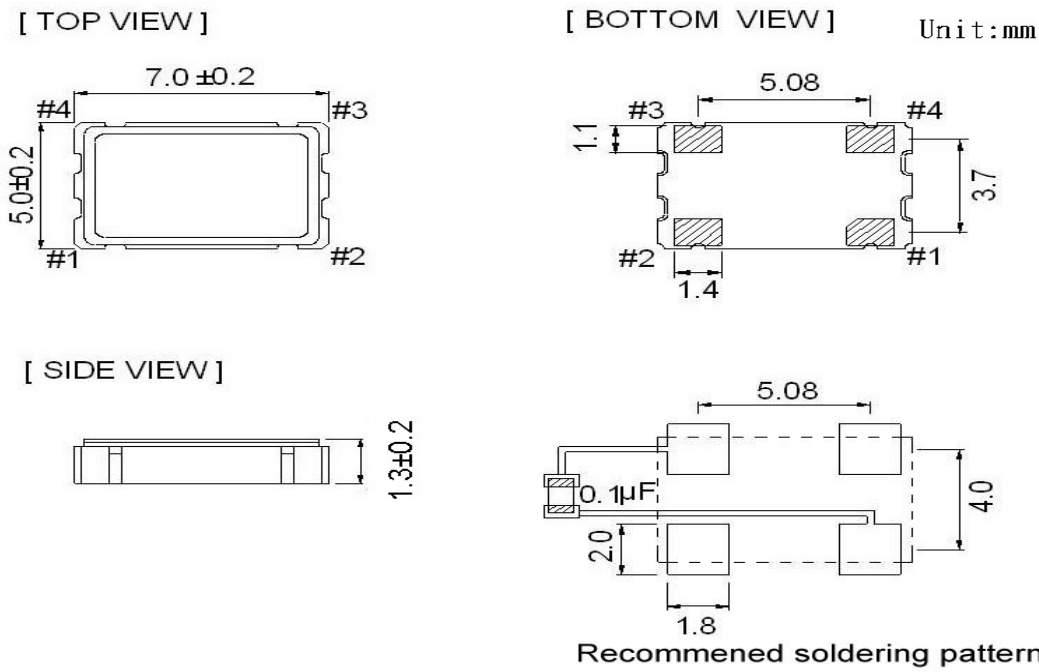
Test Conditions: Pre-heating : 150°C to 200 °C, 60~120 sec

Heating : 217 °C , 60~150 sec

Peak Temperature : 260±5 °C, 25±5 sec

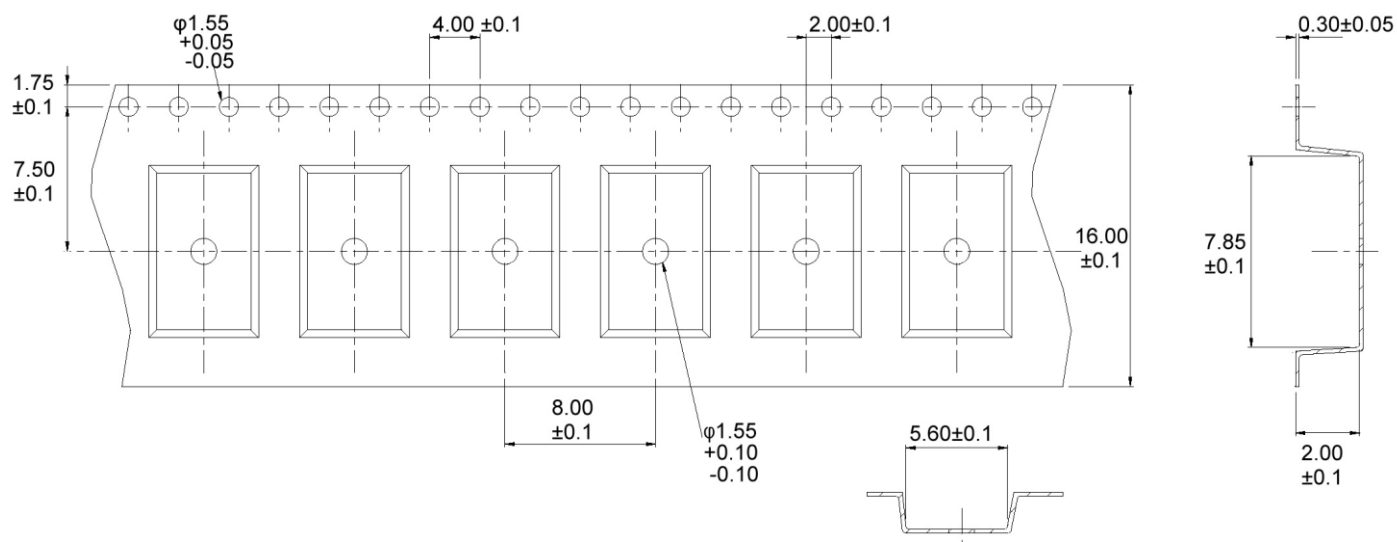
■ PRODUCT DIMENSIONS

➤ DIMENSIONS

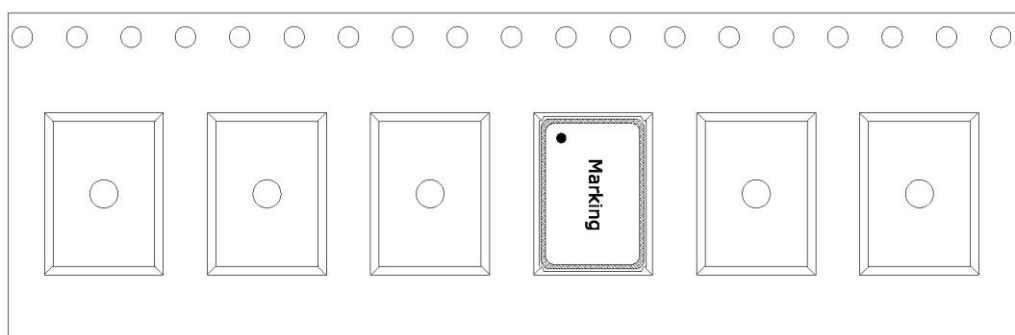


➤ PIN FUNCTIONS

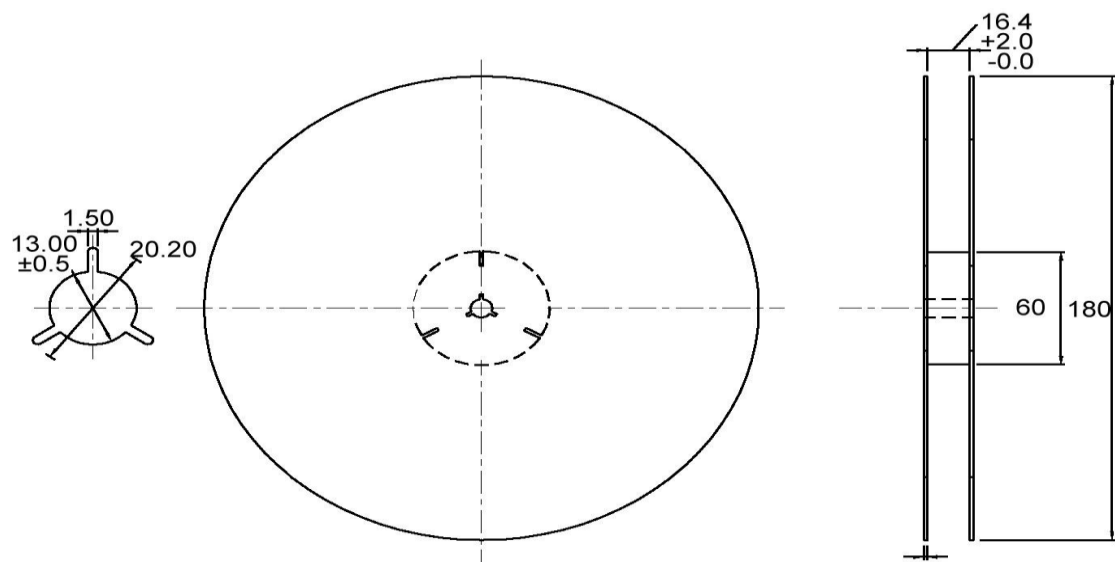
Pin	Function
#1	Tri-State
#2	GND
#3	Output
#4	V _{DD}



➤ THE DIRECTION OF PACKING



➤ REEL DIMENSIONS



Unit:mm