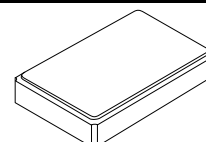


XO6017Q-1

16.000000 MHz

XO



SM5032-4

Features:

- Surface Mount Seam Weld Package
- Excellent Reliability Performance
- Good Frequency Perturbation and Stability over temperature
- Moisture Sensitivity Level: 1

Application:

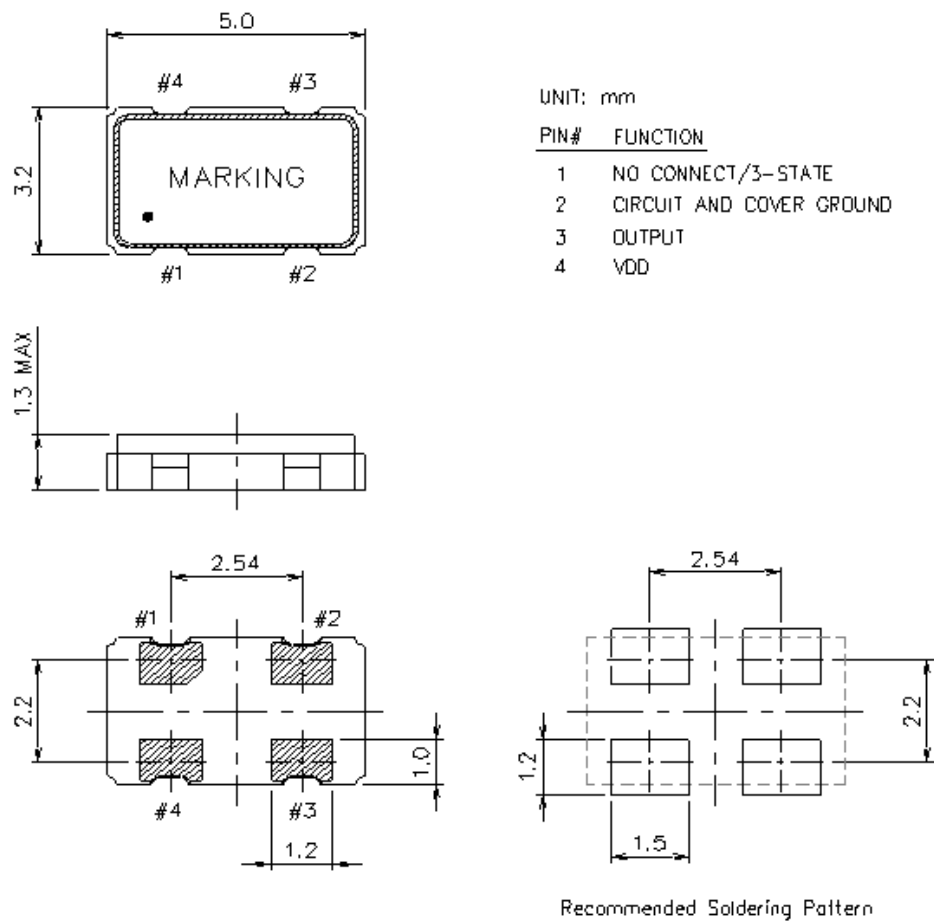
- 3.3 V Supply Voltage CMOS Output
- Option-able stand-by function for output.

Electrical Characteristics:

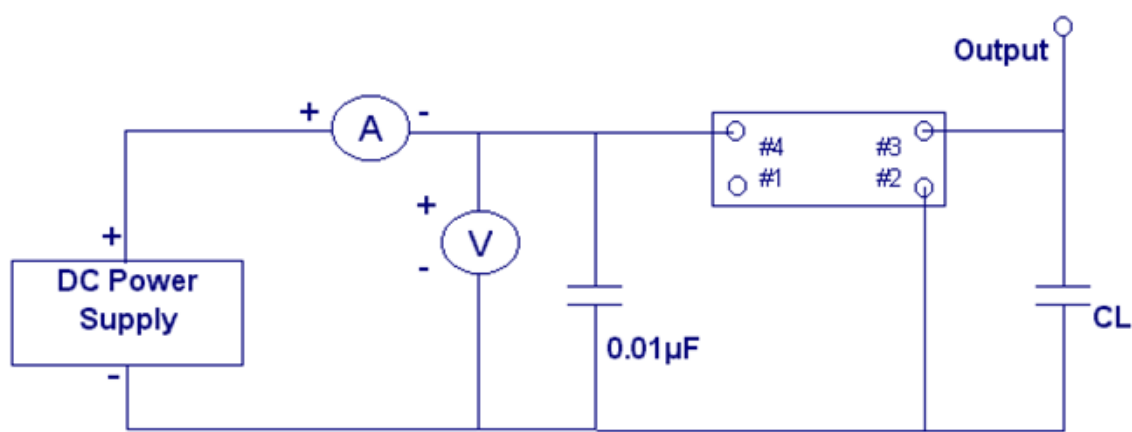
XO6017Q-1	Specifications
Nominal Frequency, Fo	16.000000 MHz
Storage Temperature Range	-55°C to +125°C
Operating Temperature Range	-40°C to +100°C
Power Supply Voltage, Vcc	3.3 V +/- 10%
Load	15pF
“0” Level “1” Level	0.33 V max 2.97 V min
Power Supply Current, Icc	10 mA max
Frequency Stability (#note 1)	+/-50 ppm max
Duty Cycle	45% ~ 55%
Rise Time (10% -> 90% of final RF level in Vp-p) Fall Time (90% -> 10% of final RF level in Vp-p)	10 nsec max. 10 nsec max.
Aging	+/-1ppm/year
Enable/Disable Function	PIN 1: High or Open, PIN 3:Output Enable PIN 1: Low, PIN 3:Output Disable

#Note 1: Frequency stability includes 25C tolerance, operating temperature range, aging and voltage or load change.

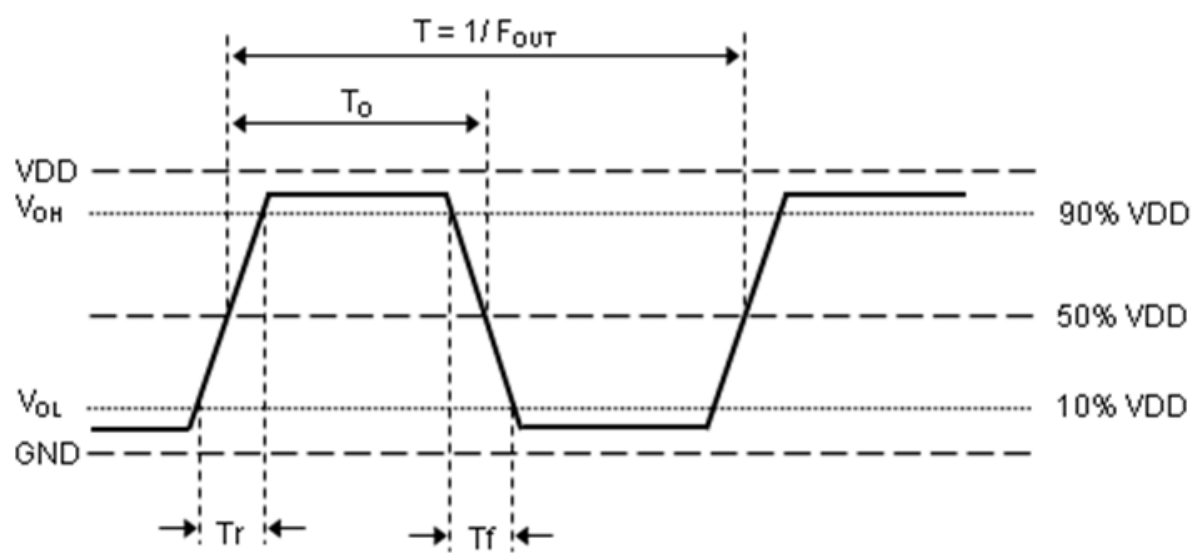
Mechanical Dimensions: (Unit: mm)



Test Circuit:



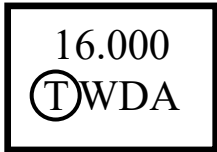
Output Waveform :



Marking:

Line 1: 16.000(Frequency)

Line 2: ⓈWDA (Product Code + Data Code + Internal Code)



Product Code Table

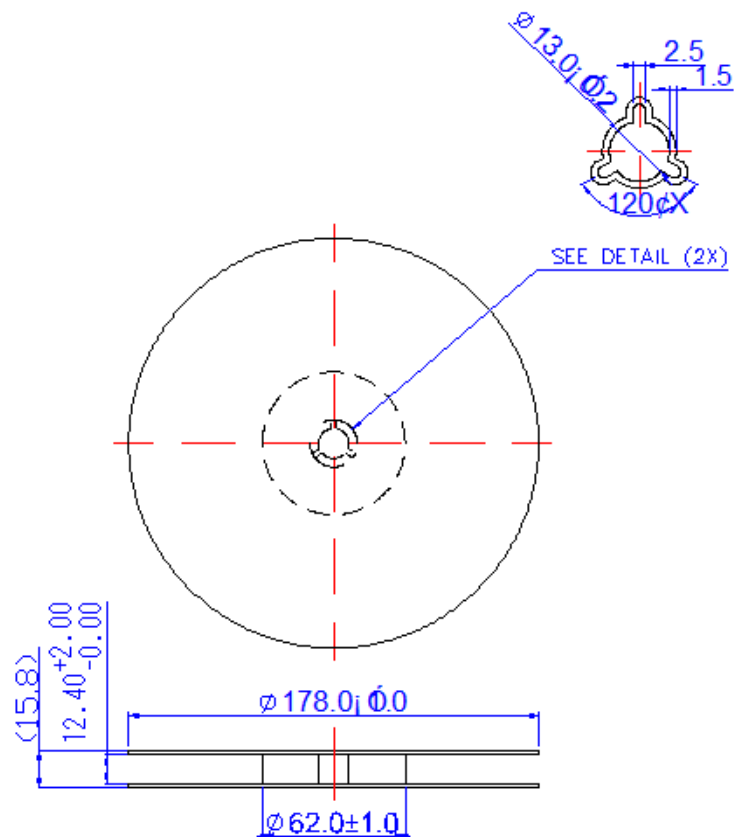
Year	2008	2009	2010	2011
	2012	2013	2014	2015
Product code	<u>z</u>	Z	z	<u>Z</u>

Date Code Table

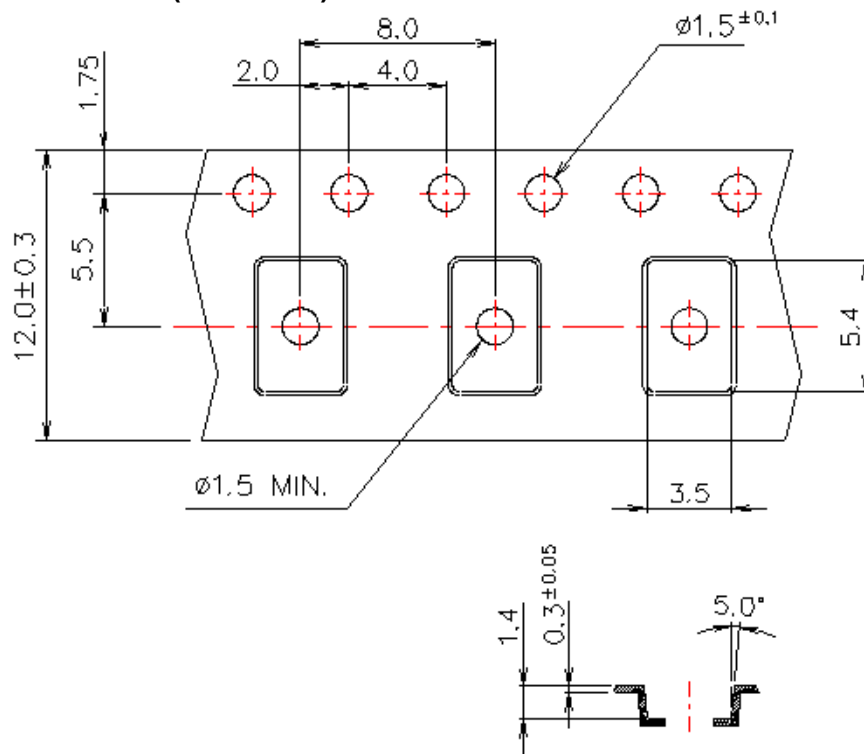
WK01	WK02	WK03	WK04	WK05	WK06	WK07	WK08	WK09	WK10	WK11	WK12	WK13
A	B	C	D	E	F	G	H	I	J	K	L	M
WK14	WK15	WK16	WK17	WK18	WK19	WK20	WK21	WK22	WK23	WK24	WK25	WK26
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
WK27	WK28	WK29	WK30	WK31	WK32	WK33	WK34	WK35	WK36	WK37	WK38	WK39
a	b	c	d	e	f	g	h	i	j	k	l	m
WK40	WK41	WK42	WK43	WK44	WK45	WK46	WK47	WK48	WK49	WK50	WK51	WK52
n	o	p	q	r	s	t	u	v	w	x	y	z

Packing:

1. Reel Dimension (Unit: mm)



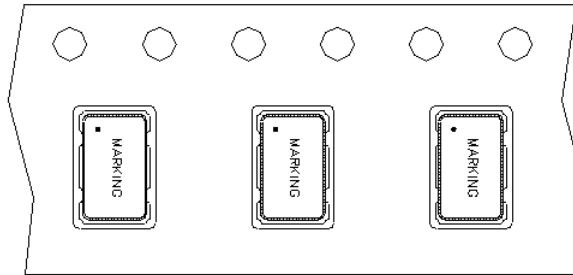
2. Tape Dimension (Unit: mm)



[NOTE]:

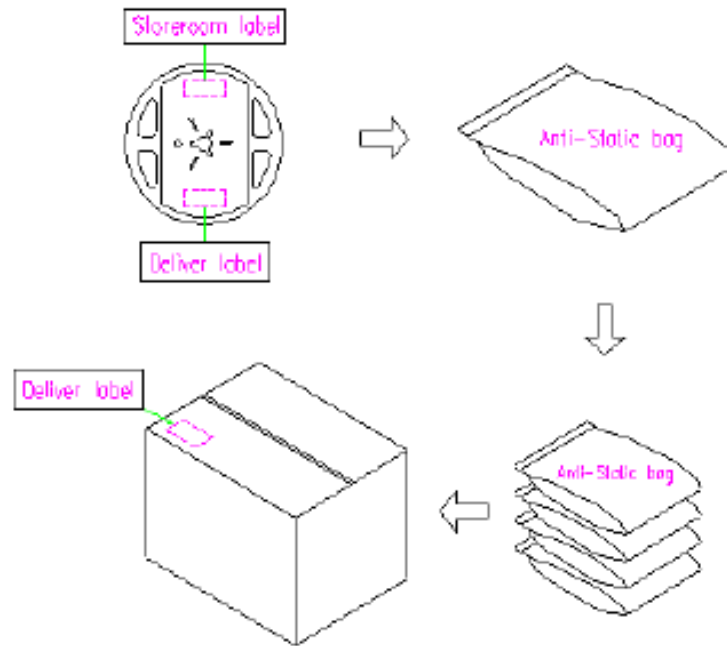
1. Unless otherwise specified tolerance on dimension ± 0.1 mm.
2. Material: conductive polystyrene with color black
3. 10 pitch cumulative tolerance ± 0.2 mm.
4. Packing Direction: dot or the logo of marking should be close to the hole of tape.

3. PACKING DIRECTION:

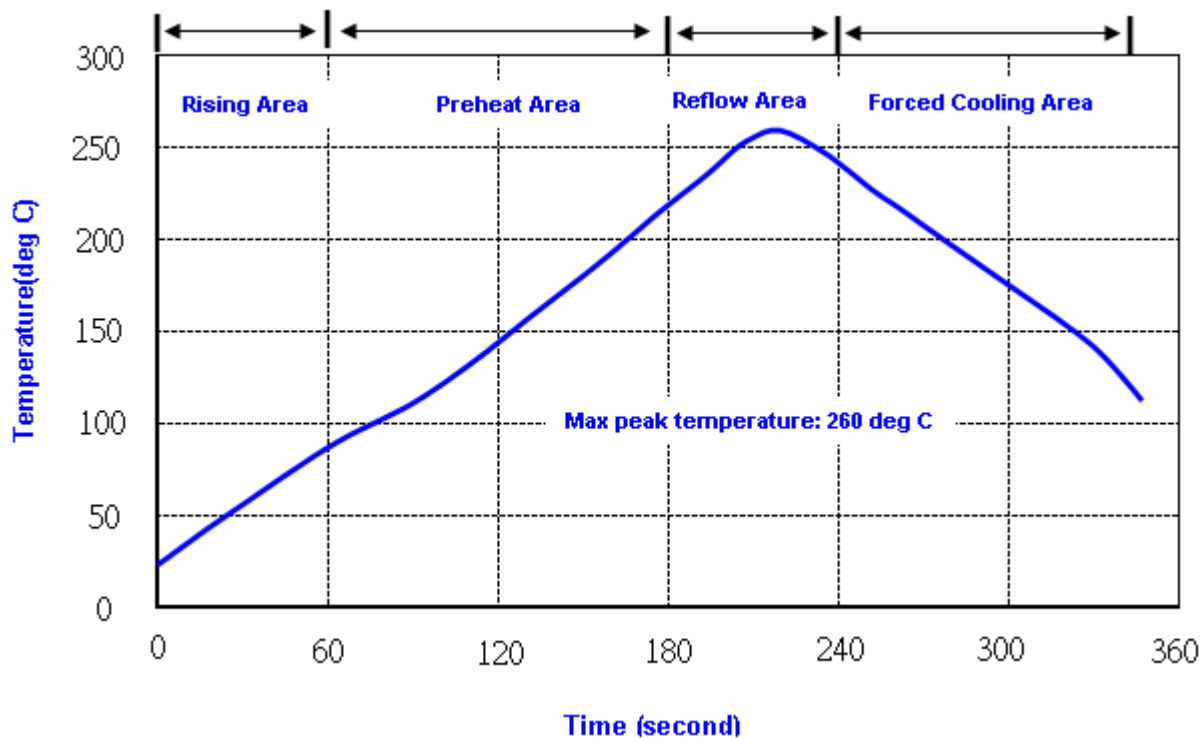


Packing Quantity/Packing:

1K pcs maximum per reel



Reflow Profile:



Note: 1. Max peak temperature: 260 $\pm$ 5 deg C; Time: 10 $\pm$ 2 sec

2. Temperature: 217 $\pm$ 5 deg C; Time: 90~100 sec

Reliability Specifications

Test name	Test process / method	Reference standard
Mechanical characteristics		
resistance to Soldering heat (IR reflow)	Temp./ Duration : 260°C /10sec ×2 times Total time : 4min.(IR-reflow)	EIAJED-4701 -300(301)M(II)
Vibration	Total peak amplitude : 1.5mm Vibration frequency : 10 to 55 Hz Sweep period : 1.0 minute Vibration directions : 3 mutually perpendicular Duration : 2 hr / direc.	MIL-STD 202F method 201A
Mechanical Shock	directions : 3 impacts per axis Acceleration : 3000g's, +20/-0 % Duration : 0.3 ms (total 18 shocks) Waveform : Half-sine	MIL-STD 202F method 213C
Solderability	Solder Temperature:265±5°C Duration time: 5±0.5 seconds.	MIL-STD 883G method 2003
Environmental characteristics		
Thermal Shock	Heat cycle conditions -55 °C (30min) ↔ 125 °C (30min) * cycle time : 10 times	MIL-STD 883G method 1010.7
Humidity test	Temperature : 70 ± 2 °C Relative humidity : 90~95% Duration : 96 hours	MIL-STD 202F method 103B
Dry heat (Aging test)	Temperature : 125 ± 2 °C Duration : 168 hours	MIL-STD 883G method 1008.2 condition C
PCT test	Pressure: 2.06kg/cm ² (2.03*10 ⁵ pa) Temperature : 121 ± 2 °C Relative humidity : 100% Duration : 24 hours	EIAJED-4701-3 B-123A



CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.