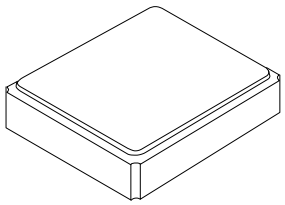
RFMi
BRAND OF AKOUSTIS

RoHS compliant

XO6007

133.000000 MHz XO



SM2520-4

Features:

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

Application:

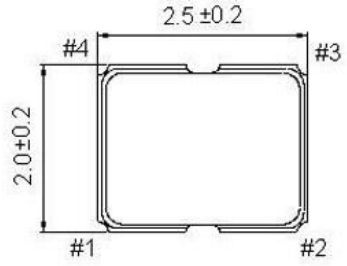
- Supply Voltage CMOS Output
- Option-able stand-by functions for output.

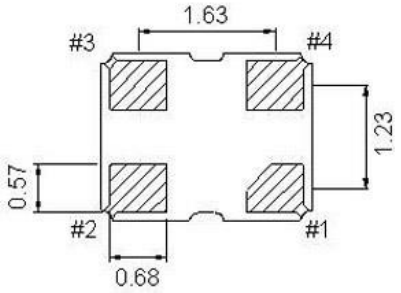
Electrical Characteristics:

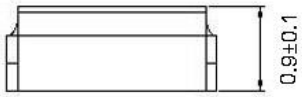
XO6007	**Specifications**
Nominal Frequency, Fo	133.000000MHz
Storage Temperature Range	-55°C to +125°C
Operating Temperature Range	-40°C to +85°C
Power Supply Voltage, Vcc	3.3V +/- 5%
Load	15pF
“0” Level “1” Level	Vol: 10%Vcc max Voh:90%Vcc min
Frequency Stability [1]	+/-30 ppm max
Duty Cycle	45% ~ 55%
Power Supply Current, Icc	22 mA max
Rise Time (10% -> 90% of final RF level in Vp-p) Fall Time (90% -> 10% of final RF level in Vp-p)	2.0 nsec max.
Start Time	2.0 msec max
Aging	3.0 ppm/year
Unit Weight	14 +/-0.5mg
Enable/Disable Function	PIN 1: Vih:70%Vcc min or Open, PIN 3: Output Enable PIN 1: Vil:30%Vcc max, PIN 3:Output Disable

#Note 1: Frequency accuracy includes 25C tolerance, operating temperature range -40 to 85 deg C, first year of aging and voltage or load change

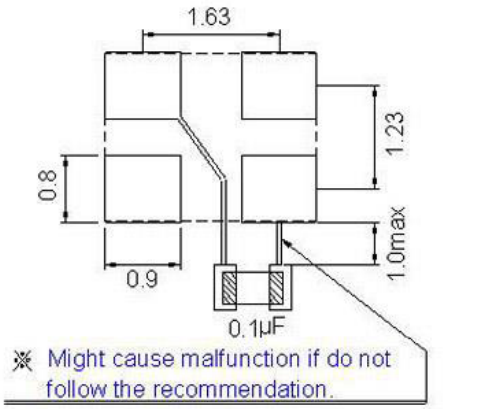
Mechanical Dimensions: (Unit: mm)





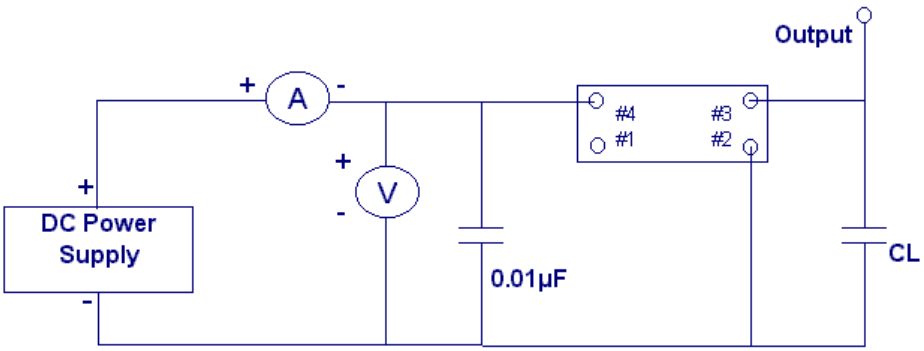


Pin	Function
#1	Tri-State
#2	GND
#3	Output
#4	V_{DD}

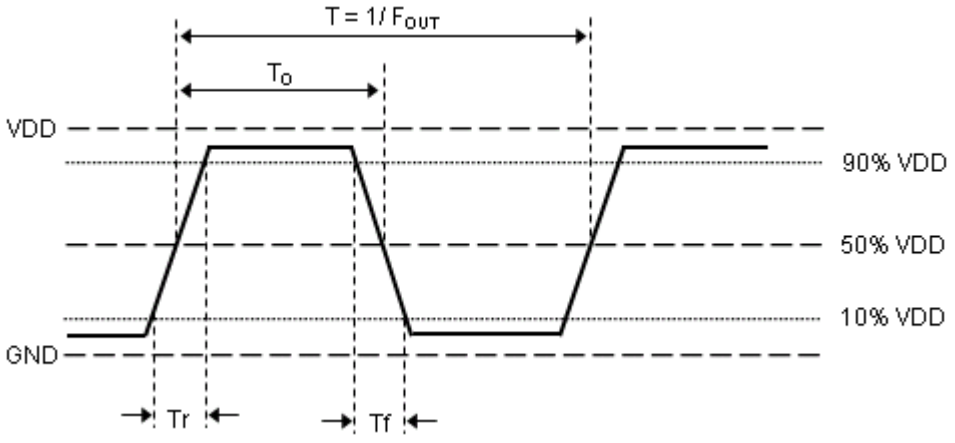


Recommened soldering pattern

Test Circuit:



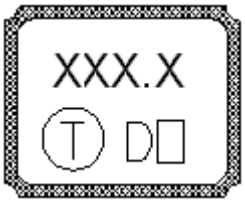
Output Waveform :



Marking:

Line 1: Frequency(133.0)

Line 2: Date Code + Product Code(□ is manufacturer's internal tracking code, could be a~z and A~Z)



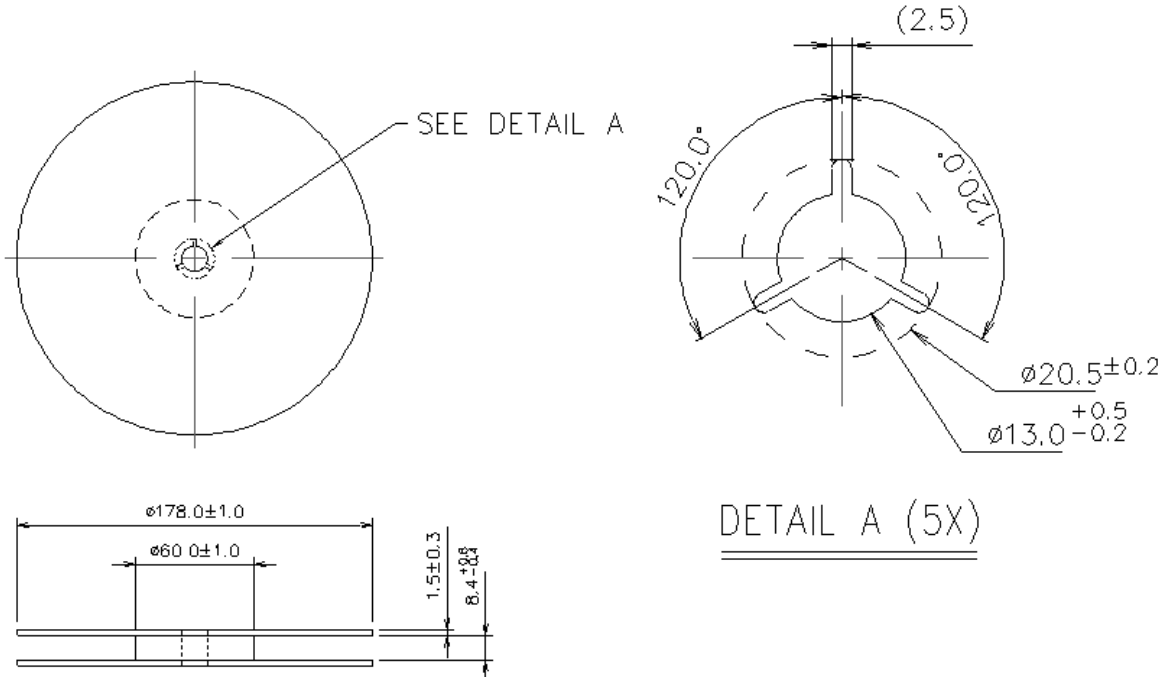
Date Code Table

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

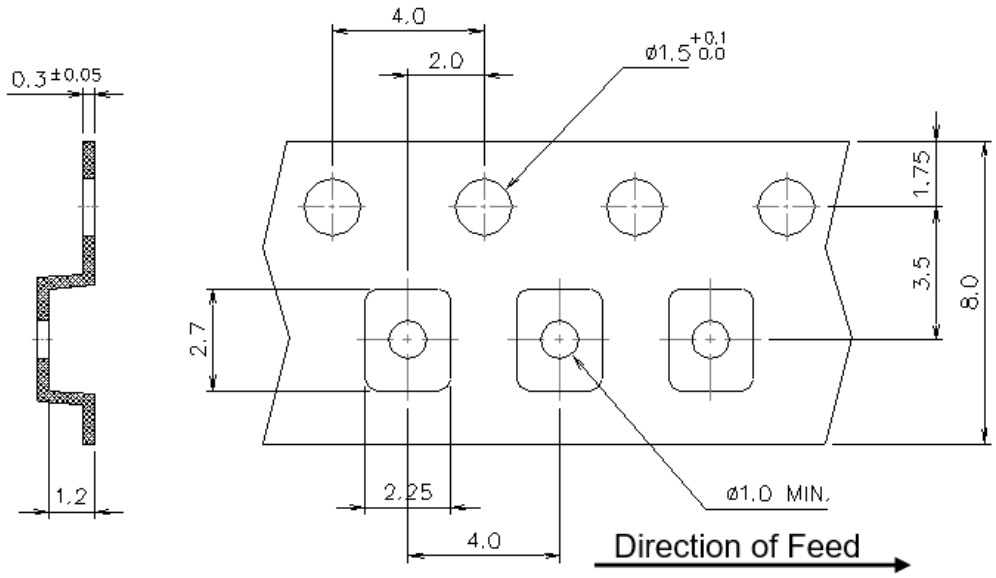
Product Code Table: (Under line With Even Year and Odd Year for Nothing)

Year						Product Code
2013	2015	2017	2019	2021	2023	□
2014	2016	2018	2020	2022	2024	□

Reel Dimensions (mm):



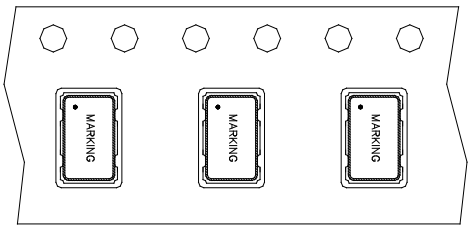
Tape Dimensions (mm):



[NOTE]:

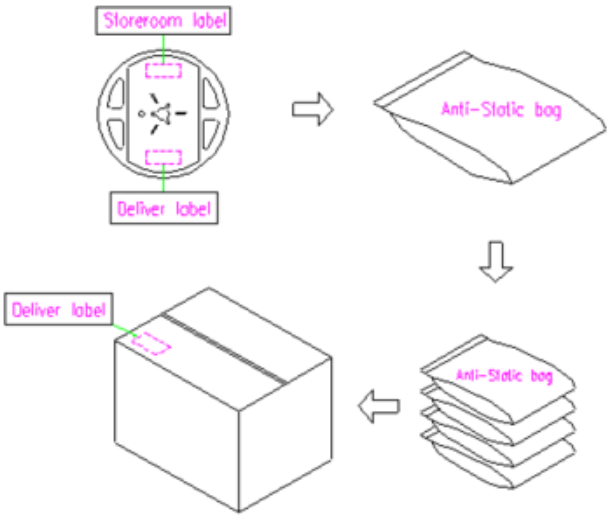
1. Unless otherwise specified tolerance on dimension +/-0.1 mm.
2. Material: conductive polystyrene with color black.
3. 10 pitch cumulative tolerance +/-0.2 mm.

PACKING DIRECTION:

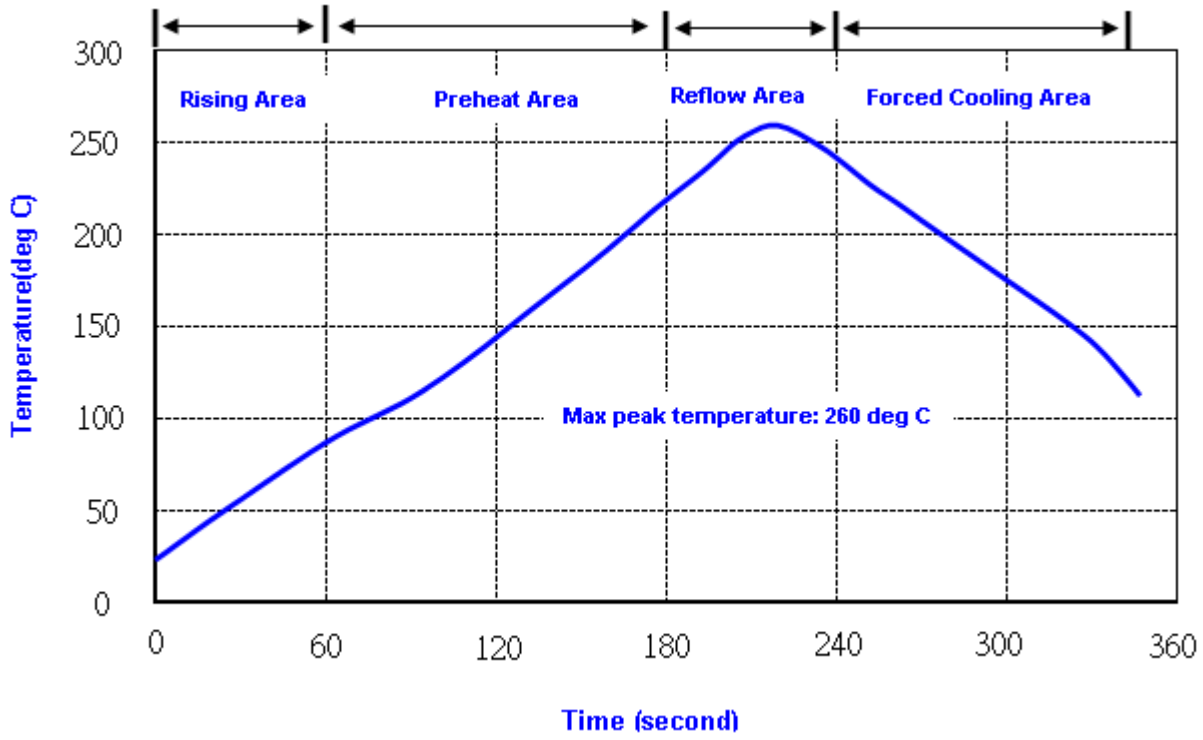


Packing Quantity/Packing:

3Kpcs per reel



Reflow Profile:



Note: 1.Max peak temperature: 260+/-5 deg C; Time: 10+/-2 sec

2. Temperature: 217+/-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 : 265°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 2000 Hz Sweep period : 20 minute Vibration directions : 3 mutually perpendicular Duration : 2 hr / direc.	MIL-STD 202G method 204
Mechanical Shock	directions : 3 impacts per axis Acceleration : 3000g's, +20/-0 % Duration : 0.3 ms (total 18 shocks) Waveform : Half-sine	MIL-STD 202G method 213
Solderability	Solder Temperature:265±5°C Duration time: 5±0.5 seconds.	J-STD-002
Environmental characteristics		
Thermal Shock	Heat cycle conditions -40 ℃ (30min) ⟷ 85 ℃ (30min) * cycle time : 10 times	MIL-STD 883G method 1010.8
Humidity test	Temperature : 85 ± 2 °C Relative humidity : 85% Duration : 96 hours	MIL-STD 202G method 103
Dry heat (Aging test)	Temperature : 125 ± 2 °C Duration : 168 hours	MIL-STD 202G method 108A
Cold resistance (Low Temp Storage)	Temperature : -40 ± 2 °C Duration : 96 hours	IEC 60068-2-1

CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

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.