

CRYSTAL OSCILLATOR



AEC-Q200

YSO140TC



Applications

- Automotive electronics

Features

- Frequency range:1MHz-54MHz.
- AEC-Q200.
- Package Size: 1.6*1.2 , 2.0*1.6
2.5*2.0 , 3.2*2.5 , 5.0*3.2 , 7.0*5.0mm

Specifications

Frequency Range	1MHz to 54MHz,or specify
Supply Voltage	1.8~3.3V
Output Type	CMOS
Total Tolerance	±50ppm,±100ppm,or specify
Output Load	15pF
Operating Temperature Range	-40~+85°C,-40~+125°C,or specify
Storage Temperature Range	-55~+125°C
Voltage Vol (Max.) / Vol (Min.)	VOH = 90%Vdd/VOL = 10%Vdd
Duty Cycle	45~55%
Rise(Tr) /Fall(Tf) Time	5ns Max.
Start-up Time	3ms Max.
Supply Current	See Below
Frequency Aging (at 25°C)	±3 ppm / year Max.

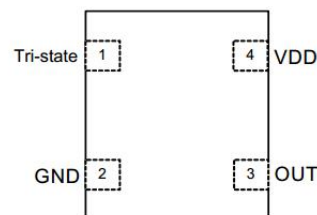
Current Consumption

Supply Voltage (V)	Power Dissipation Vcc=1.8~3.3V 15pF only	
	1.000~40.000MHZ	41.000~54.000MHZ
	7050/5032/3225/2520/2016/1612	
1.8V	4mA max	9mA max
2.5V	4.5mA max	10mA max
3.3V	5mA max	12mA max

Pin Dimension

Pin	#1	#2	#3	#4
FUNCTION	Tri-state	GND	OUTPUT	VDD

Pin Assignments



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Dimensions and Patterns [unit:mm]



Package Size – Dimensions (Unit: mm)	Recommended Land Pattern (Unit: mm)
<p>1.6*1.2mm</p>	
<p>2.0*1.6mm</p>	
<p>2.5*2.0mm</p>	
<p>3.2*2.5mm</p>	

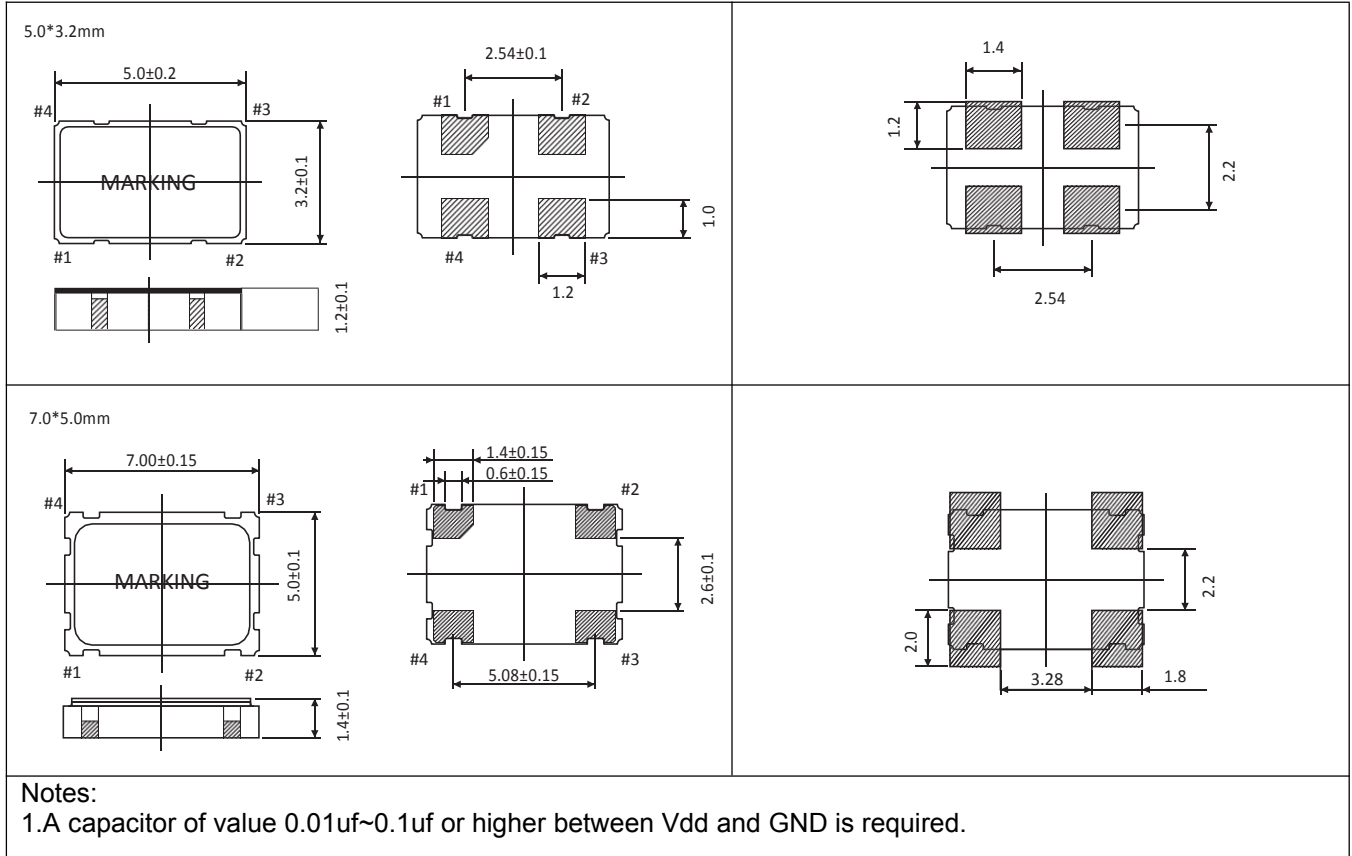
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Reflow Soldering Profile

Pre Heating

Temperature Tp1 ~ Tp2 = + 170 °C

Heating Temperature

TMit = + 220 °C

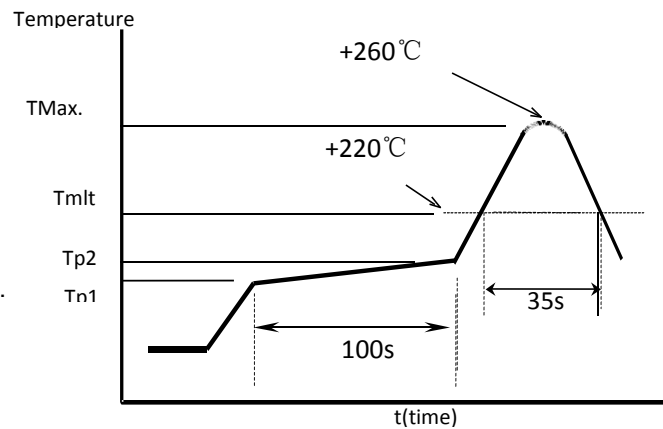
Peek Temperature

TMax. = + 260 °C

Point of measuring

In case of Solder ability Terminal.

In case of Resistance to soldering heat Surface.



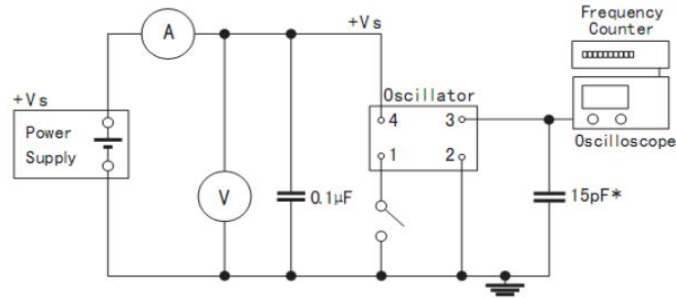
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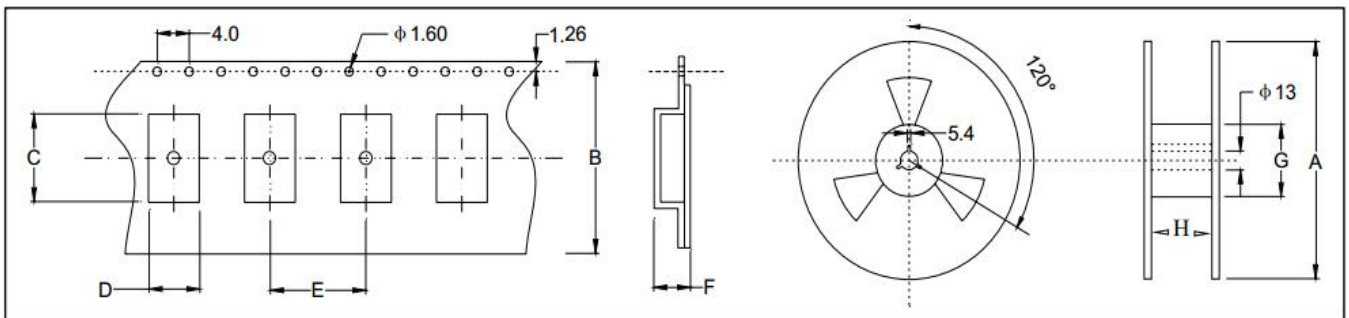
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Test Circuit



Taping Specification(Unit: mm)



Size(OSC)	A	B	C	D	E	F	G	H
SMD-7050	180±2.0	16.0±0.3	7.50±0.1	5.50±0.1	8.0±0.1	2.00±0.1	61.0±1.0	16.0±1.0
SMD-5032	180±2.0	12.0±0.3	5.40±0.1	3.60±0.1	8.0±0.1	1.70±0.1	61.0±1.0	12.0±1.0
SMD-3225	180±2.0	8.0±0.3	3.40±0.1	2.70±0.1	4.0±0.1	1.50±0.1	61.0±1.0	8.0±1.0
SMD-2520	180±2.0	8.0±0.3	2.90±0.1	2.40±0.1	4.0±0.1	1.20±0.1	61.0±1.0	8.0±1.0
SMD-2016	180±2.0	8.0±0.3	2.30±0.1	1.90±0.1	4.0±0.1	0.95±0.1	61.0±1.0	8.0±1.0
SMD-1612	180±2.0	8.0±0.3	1.80±0.1	1.40±0.1	4.0±0.1	0.80±0.1	61.0±1.0	8.0±1.0