

# Crystal Oscillator AEC-Q200 YSO140TC



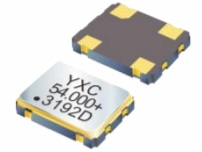
## Applications

- 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 (规格参数)

Item	Symbol	Specifications
Frequency Range (额定频率范围)	f <sub>0</sub>	1 ~ 54MHz, or specify
Supply Voltage (电源电压)	VDD	1.8V ~ 3.3V
Output Type (输出方式)	-	CMOS
Frequency Tolerance over Operating Temperature Range (频率频差)	f <sub>tol</sub>	±50ppm, ±100ppm, or specify
Output Load (输出负载)	L <sub>cmos</sub>	15pF
Operating Temperature (工作温度)	T <sub>use</sub>	-40 ~+ 125°C, or specify
Storage Temperature (储存温度)	T <sub>stg</sub>	-55 ~+ 150°C
Output Voltage (输出电压)	V <sub>oh</sub>	90%VDD Min
	V <sub>ol</sub>	10%VDD Max
Duty Cycle (占空比)	SYM	45 ~ 55%
Start-up Time (启动时间)	t <sub>str</sub>	3ms Max
Rise Time/Fall Time (上升沿/下降沿)	tr/tf	5ns Max
Phase Jitter [12 kHz ~ 20 MHz] (相位抖动)	tpj	0.7ps Max
Frequency Aging (老化) (at 25°C)	f <sub>age</sub>	±3ppm/year Max
Tri-State	Enable (High Voltage or Floating)	70% of VDD Min
	Disable (Low Voltage or GND)	30% of VDD Max

## Current Consumption (消耗电流)

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

Please contact us for current consumption for frequencies above 54MHz

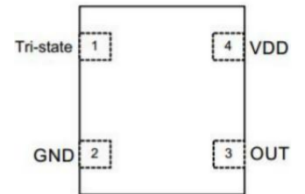
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## Pin Dimension (脚位尺寸)

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

Pin Assignments



\*The picture on the right is only for PIN function description.

## Dimensions and Recommended land pattern (外观尺寸及推荐焊盘)

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>	

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<p>3.2*2.5mm</p>	
<p>5.0*3.2mm</p>	
<p>7.0*5.0mm</p>	
<p>Notes: 1.A capacitor of value 0.01uf~0.1uf or higher between Vdd and GND is required.</p>	

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Test Circuit (测试电路)

