

Crystal Oscillator

AEC-Q200

YSO140TC



Applications

- Automotive Electronics

Features

- Frequency range: 1MHz ~ 54MHz
- 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_0	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_{tol}	$\pm 50\text{ppm}$, $\pm 100\text{ppm}$, or specify
Output Load (输出负载)	L_cmos	15pF
Operating Temperature (工作温度)	T_use	-40 ~ +125°C, or specify
Storage Temperature (储存温度)	T_stg	-55 ~ +150°C
Output Voltage (输出电压)	Voh	90%VDD Min
	Vol	10%VDD Max
Duty Cycle (占空比)	SYM	45 ~ 55%
Start-up Time (启动时间)	t_str	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_age	$\pm 3\text{ppm/year}$ 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		55.000~100.000MHZ
	7050/5032/3225	2520/2016/1612	7050/5032/3225/2520	2016/1612	7050/5032/3225/2520/2016/1612
1.8V	4mA Max	4mA Max	9mA Max	10mA Max	35mA Max
2.5V	4.5mA Max		10mA Max		
3.3V	5mA Max		12mA Max		

Please contact us for current consumption for frequencies above 100MHz

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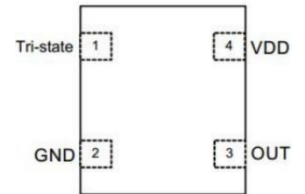
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Pin Dimension (脚位尺寸)

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)

