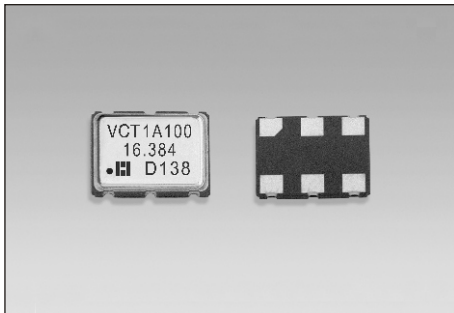




# SURFACE MOUNT VOLTAGE CONTROLLED CRYSTAL OSCILLATORS

## • VC-T Series



The VC-T1 series is surface mount voltage controlled crystal oscillator designed primarily for use in phase locked loops, phase shift keying and other telecommunication applications such as ADSL, Cable modem etc. VC-T1 is 5V power supply and VC-T3 is 3.3V power supply.

### FEATURES

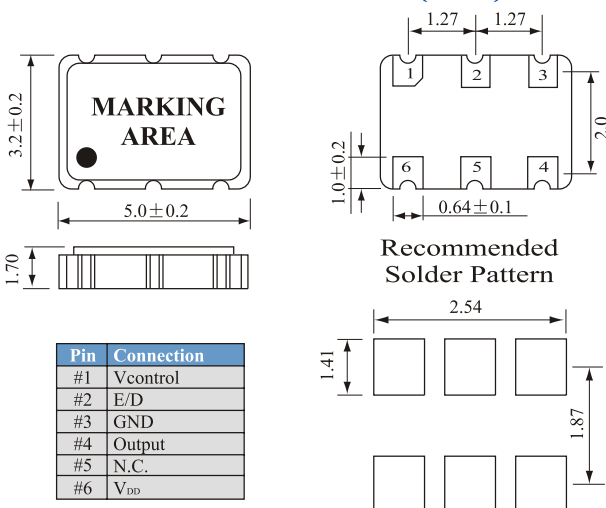
- Miniature Package
- Industry Standard
- TTL/HCMOS output compatible
- Tri-State Enable
- Tape and Teel
- 3.3V available

## Electrical Specifications

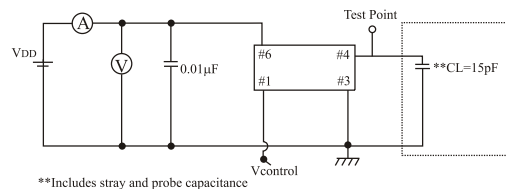
Parameter	Condition	VC-T1	VC-T3
Frequency Range*	F <sub>o</sub>	1.750MHz~54.000MHz	1.750MHz~54.000MHz
Frequency Calibration	At 25°C	± 15ppm	
Temperature Stability	Over T <sub>OPR</sub>	± 15ppm, ± 25ppm, ± 50ppm	
Stability vs. power change	V <sub>DD</sub> +/-5%	± 5ppm	
Stability vs. load change	15pF+/-10%	± 3ppm	
Pullability	Over Control Voltage Range	± 50ppm, ± 100ppm, ± 200ppm	± 50ppm, ± 100ppm, ± 150ppm
Control Voltage Range		0.5~4.5V	0~3.3V
Operating Temperature Range	T <sub>OPR</sub>	0°C~70°C (-40°C~+85°C option)	
Storage Temperature Range	T <sub>STG</sub>	-55°C~+125°C	
Power Supply Voltage	V <sub>DD</sub>	5.0V+/-5%	3.3V+/-5%
Aging (First Year)	25°C ± 3°C	± 5ppm	
Supply Current	I <sub>DD</sub>	30mA Max	
Output Symmetry	Sym	40/60%(45/55% Option)	
Rise time	T <sub>r</sub>	10 nS Max	8 nS Max
Fall Time	T <sub>f</sub>	10 nS Max	8 nS Max
Output Voltage	V <sub>OH</sub>	90% V <sub>DD</sub> min	
	V <sub>OL</sub>	10% V <sub>DD</sub> max	
Output Load		15pF max	
Start-up Time	T <sub>s</sub>	10mS Max	

\* Frequency over 40.000Mhz, please consult factory.

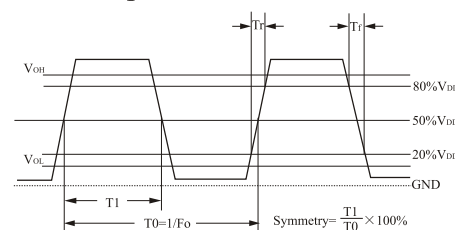
## Mechanical Dimensions(mm)



### Test Circuit



### Output Waveform



\*\*\*note: A 0.01µF bypass capacitor should be placed between V<sub>DD</sub>(Pin6) and GND(Pin3) to Minimize power supply line noise