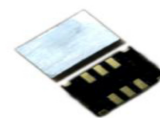


## Temperature Compensated Crystal Oscillators



### HC MOS/TTL HIGH FREQUENCY TCXO IN SMD PACKAGE – TC149C Series

#### SPECIFICATIONS

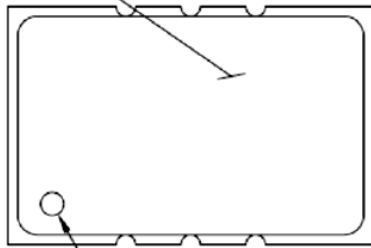
<b>Part Number</b>	<b>TC149C-100.000MHZ</b>
<b>Frequency</b>	100MHz
<b>Temperature Range</b>	B = -40°C to +85°C
<b>Frequency Stability vs Temp.</b>	010 = ±1 ppm Maximum
<b>Nominal Frequency Tolerance</b>	±1 ppm Maximum Frequency at 25°C, before reflow
<b>Supply Voltage (Vcc)</b>	B = +3.3 V ± 5%
<b>Input Current</b>	33mA Maximum at 25°C
<b>Storage Temperature</b>	-55°C to +95°C
<b>Frequency Stability vs Vcc</b>	±0.1 ppm Maximum / Vcc ±5%
<b>Frequency Stability vs Load</b>	±0.1 ppm Maximum / load change ±10%
<b>Aging</b>	±1 ppm Maximum first year at 25°C ±5 ppm Maximum 10 years at 25°C
<b>G sensitivity</b>	1.0 ppb/G Maximum Condition: In all axes, 20-2000Hz
<b>Phase Noise (100MHz Typ)</b>	-85 dBc/Hz at 10Hz -120 dBc/Hz at 100Hz -142 dBc/Hz at 1KHz -152 dBc/Hz at 10KHz -160 dBc/Hz at 100KHz -165 dBc/Hz at 1MHz
<b>Output Waveform</b>	CMOS
<b>Output Load</b>	15pF
<b>Duty cycle</b>	55/45% Measured at 50% Vcc trigger level
<b>Output Level</b>	High 0.9Vcc Minimum / Low 0.1Vcc Maximum
<b>Rise and fall times</b>	6.0 ns Maximum CMOS logic output at Low to High
<b>Start time</b>	2.0 ms Maximum

#### Environmental and Mechanical

Parameter	Specification
<b>Mechanical Shock</b>	Per MIL-STD-202, Method 213, Condition E
<b>Thermal Shock</b>	Per MIL-STD-883, Method 1011, Condition A
<b>Vibration</b>	Per MIL-STD-883, Method 2007, Condition A
<b>Soldering Conditions</b>	260°C for 10s max
<b>Hermetic Seal</b>	Leak rate less than $5 \times 10^{-8}$ atm.cc/s of helium (crystal only)

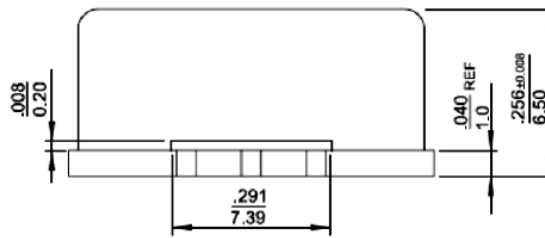
# OUTLINE DRAWING

MARKING THIS SURFACE

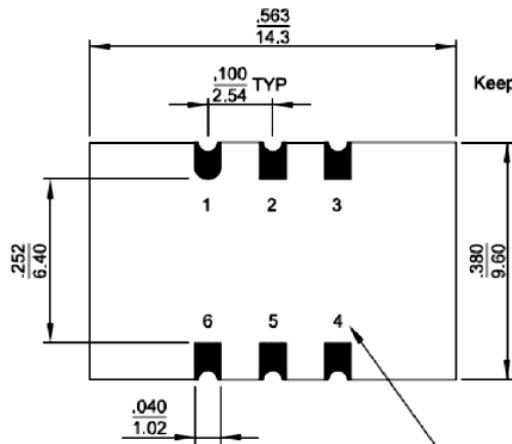


PIN 1 SYMBOL

(VIEW FROM TOP)

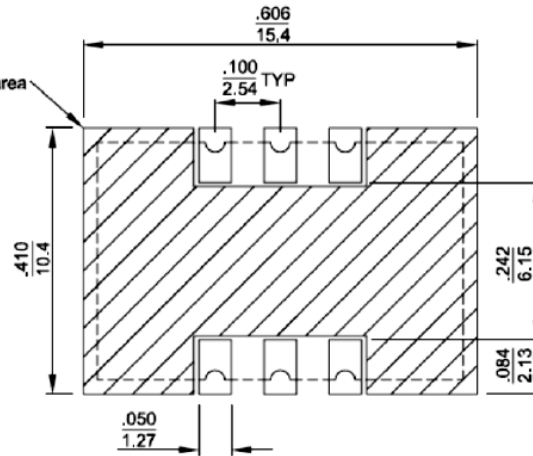


## RECOMMENDED SOLDER PAD LAYOUT



Numbers for reference only (Not stamped on unit)

(VIEW FROM BOTTOM)



### Pin Connections

- #1 N/C    #2 N/C    #3 GND
- #6 VDD    #5 N/C    #4 Output

$\frac{\text{INCH}}{\text{mm}}$  (REFERENCE ONLY)

## Maximum solder reflow profile

