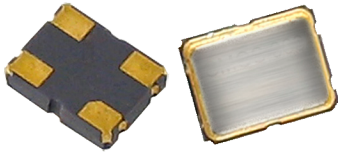


**1.8V ~ 3.3VDC Clipped Sinewave TCXO**

**JT255**



2.5 x 2.0mm Ceramic SMD

**Product Features**

- Low Current
- Tight temperature stability
- Clipped Sinewave output levels
- Excellent Phase Noise
- Industrial Temperature Range
- Pb-free and RoHS/Green compliant
- Fast lead time

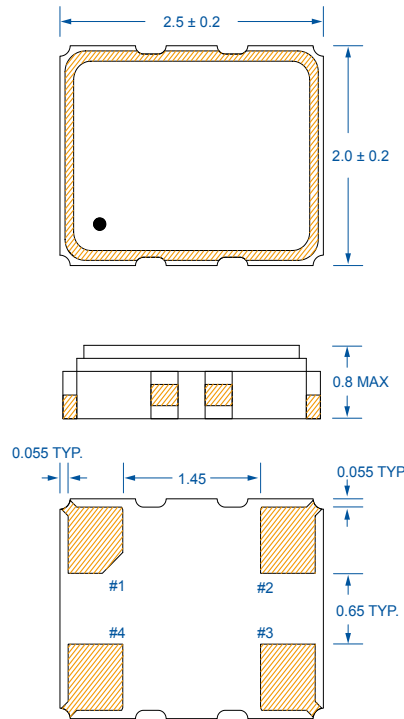
**Product Description**

The JT255 TCXO series is a high performance temperature compensated oscillator with a clipped sinewave output for a very low operating supply current. It supports various power supply voltages, stabilities and other features. It is designed to meet existing application requirements.

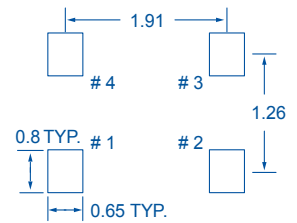
**Applications**

- Networking systems
- Networking
- GPS/Navigation
- Metering
- Mobile and wireless
- Handset

**Package: (scale-none, dimensions in mm)**



**Recommended Land Pattern:**



**Pin Functions:**

Pin	Function
1	Ground
2	Ground
3	Output
4	V <sub>DD</sub>

**Typical Frequencies available MHz:**

16.367667	16.369	19.200
25.000	26.000	40.000

**Part Ordering Information:**

**JT255 V X FFFF.FFFFFFF**

<p><b>Voltage:</b></p> <p>1 = +3.3V 2 = +2.5V 3 = +1.8V 4 = +1.5V B = +3.0V C = +2.8V D = +2.7V E = +2.85V F = +2.75V G = +2.4V</p>	<p><b>Stability and Temp Range:</b></p> <table border="1"> <thead> <tr> <th>Stability</th> <th>Temp Range</th> <th>-20/+70C</th> <th>-30/+85C</th> <th>-30/+75C</th> <th>-40/+85C</th> </tr> </thead> <tbody> <tr> <td>+/-0.5ppm</td> <td>A</td> <td>F</td> <td>K</td> <td>P*</td> <td></td> </tr> <tr> <td>+/-1.0ppm</td> <td>B</td> <td>G</td> <td>L</td> <td>Q</td> <td></td> </tr> <tr> <td>+/-1.5ppm</td> <td>C</td> <td>H</td> <td>M</td> <td>R</td> <td></td> </tr> <tr> <td>+/-2.0ppm</td> <td>D</td> <td>I</td> <td>N</td> <td>S</td> <td></td> </tr> <tr> <td>+/-2.5ppm</td> <td>E</td> <td>J</td> <td>O</td> <td>T</td> <td></td> </tr> <tr> <td>+/-5.0ppm</td> <td>W</td> <td>X</td> <td>Y</td> <td>U</td> <td></td> </tr> </tbody> </table> <p>P* : This option is not available for all frequencies. Please contact Pericom sales for your special needs.</p>	Stability	Temp Range	-20/+70C	-30/+85C	-30/+75C	-40/+85C	+/-0.5ppm	A	F	K	P*		+/-1.0ppm	B	G	L	Q		+/-1.5ppm	C	H	M	R		+/-2.0ppm	D	I	N	S		+/-2.5ppm	E	J	O	T		+/-5.0ppm	W	X	Y	U		<p><b>Frequency:</b></p> <p>FFFF.FFFFFFF MHz, "4 digits/decimal/6 digits" format</p>
Stability	Temp Range	-20/+70C	-30/+85C	-30/+75C	-40/+85C																																							
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Following the above format, PSE Technology Corporation part numbers will be assigned upon confirmation of exact customer requirements.

A product Line of  
Diodes Incorporated**Temperature Compensated Crystal  
Oscillator (TCXO) 2.5 x 2.0 mm****Electrical Performance**

Parameter		Min.	Typ.	Max.	Units	Notes
Output Frequency		10		52	MHz	
Supply Voltage		1.8		3.3	V	See ordering options, VDD ±5%
Supply Current				1.5	mA	Output Frequency ≤ 30 MHz
				2.0	mA	Output Frequency > 30 MHz
Output Voltage Level		0.8		1.4	V	Pk-Pk
Output Load	Resistance	9	10	11	kΩ	
	Capacitance	9	10	11	pF	
Frequency Stability	vs Temperature	±0.5		±5.0	ppm	See ordering options
	vs Load			±0.2	ppm	±10% load change
	vs Voltage			±0.1	ppm	±5% supply voltage change at typical load
Static Temperature Hysteresis				±0.6	ppm	
Frequency Aging				±1.0	ppm	First year, +25°C
Frequency Tolerance After Two Reflows				±2.0	ppm	@ +25°C±3°C after one hour recovery
Harmonics				-8	dBc	
Operating Temperature Range		-40		85	°C	See ordering options
Storage Temperature Range		-40		85	°C	
Phase Noise at 1KHz offset			-135	-140	dBc/Hz	At 26MHz
Start up Time				2	ms	

**Notes:**

1. For specifications other than those listed, please contact sales.
2. Not all combinations of V<sub>DD</sub>, Operating Temperature Range, Frequency Stability and Output Frequency are available.
3. Frequency Stability vs. Temperature is reference to the mid-point between minimum and maximum frequency values over the specified Operating Temperature Range
4. Frequency Stability vs. Voltage and vs. Load changes are reference to the Nominal Frequency at 25°C

For the latest product information visit: <https://www.diodes.com/part/JT255>

For test circuit go to: [https://www.diodes.com/assets/sre/TCXO\\_CLIPPEDESINE\\_RevB.pdf](https://www.diodes.com/assets/sre/TCXO_CLIPPEDESINE_RevB.pdf)

For soldering reflow profile and reliability test ratings go to: <https://www.diodes.com/assets/sre/reflow.pdf>

For tape and reel information go to: <https://www.diodes.com/assets/sre/tr-2520-xo.pdf>

A product Line of  
Diodes Incorporated**Temperature Compensated Crystal  
Oscillator (TCXO) 2.5 x 2.0 mm****IMPORTANT NOTICE**

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  2. support or sustain life and whose failure to perform when properly used in accordance with instructions for use provided in the labeling can be reasonably expected to result in significant injury to the user.
- B. A critical component is any component in a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or to affect its safety or effectiveness.

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