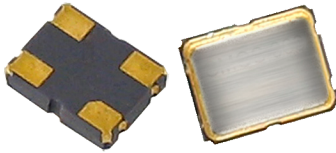


Temperature Compensated Crystal Oscillator 2.5 x 2.0mm

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

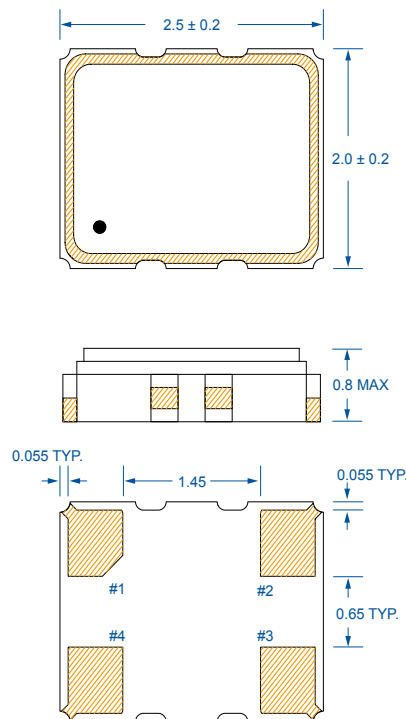
Product Description

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.

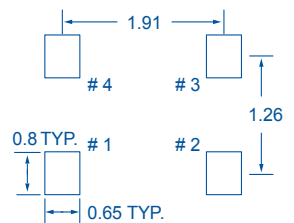
Applications

- 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 _{DD}

Typical Frequencies available MHz:

16.367667	16.369	19.200
25.000	26.000	40.000

Part Ordering Information:

JT255 V X FFFF.FFFFFFFF
① ② ③
Voltage:

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

Stability and Temp Range:

Stability	Temp Range	-20/+70C	-30/+85C	-30/+75C	-40/+85C
A			F	K	P*
B			G	L	Q
C			H	M	R
D			I	N	S
E			J	O	T
W			X	Y	U

Frequency:

FFFF.FFFFFFFF
MHz, "4 digits/decimal/6 digits" format

P* : This option is not available for all frequencies.
Please contact Pericom sales for your special needs.

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 $\pm 5\%$
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	k Ω	
	Capacitance	9	10	11	pF	
Frequency Stability	vs Temperature	± 0.5		± 5.0	ppm	See ordering options
	vs Load			± 0.2	ppm	$\pm 10\%$ load change
	vs Voltage			± 0.1	ppm	$\pm 5\%$ supply voltage change at typical load
Static Temperature Hysteresis				± 0.6	ppm	
Frequency Aging				± 1.0	ppm	First year, $+25^{\circ}\text{C}$
Frequency Tolerance After Two Reflows				± 2.0	ppm	@ $+25^{\circ}\text{C} \pm 3^{\circ}\text{C}$ after one hour recovery
Harmonics				-8	dBc	
Operating Temperature Range		-40		85	$^{\circ}\text{C}$	See ordering options
Storage Temperature Range		-40		85	$^{\circ}\text{C}$	
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 VDD, 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_CLIPPEDSINE_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

DIODES INCORPORATED MAKES NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, WITH REGARDS TO THIS DOCUMENT, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE (AND THEIR EQUIVALENTS UNDER THE LAWS OF ANY JURISDICTION).

Diodes Incorporated and its subsidiaries reserve the right to make modifications, enhancements, improvements, corrections or other changes without further notice to this document and any product described herein. Diodes Incorporated does not assume any liability arising out of the application or use of this document or any product described herein; neither does Diodes Incorporated convey any license under its patent or trademark rights, nor the rights of others. Any Customer or user of this document or products described herein in such applications shall assume all risks of such use and will agree to hold Diodes Incorporated and all the companies whose products are represented on Diodes Incorporated website, harmless against all damages.

Diodes Incorporated does not warrant or accept any liability whatsoever in respect of any products purchased through unauthorized sales channel.

Should Customers purchase or use Diodes Incorporated products for any unintended or unauthorized application, Customers shall indemnify and hold Diodes Incorporated and its representatives harmless against all claims, damages, expenses, and attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized application.

Products described herein may be covered by one or more United States, international or foreign patents pending. Product names and markings noted herein may also be covered by one or more United States, international or foreign trademarks.

This document is written in English but may be translated into multiple languages for reference. Only the English version of this document is the final and determinative format released by Diodes Incorporated.

LIFE SUPPORT

Diodes Incorporated products are specifically not authorized for use as critical components in life support devices or systems without the express written approval of the Chief Executive Officer of Diodes Incorporated. As used herein:

A. Life support devices or systems are devices or systems which:

1. are intended to implant into the body, or
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.

Customers represent that they have all necessary expertise in the safety and regulatory ramifications of their life support devices or systems, and acknowledge and agree that they are solely responsible for all legal, regulatory and safety-related requirements concerning their products and any use of Diodes Incorporated products in such safety-critical, life support devices or systems, notwithstanding any devices- or systems-related information or support that may be provided by Diodes Incorporated. Further, Customers must fully indemnify Diodes Incorporated and its representatives against any damages arising out of the use of Diodes Incorporated products in such safety-critical, life support devices or systems.

Copyright © 2016, Diodes Incorporated
www.diodes.com