

# MV-TS644-1495X

Temperature Compensated Crystal Oscillator (TCXO)

14.4 x 9.5mm - Sine Wave

MV-TS644-1495X is a Temperature Compensated Crystal Oscillator (TCXO). This TCXO is analog temperature compensated, Sine Wave output device and comes in a FR4 base with metal cover 14.4x9.5mm package.

The device is qualified to meet the JEDEC standard for Pb-Free assembly and compliant to the RoHS directive.

## **Electrical Performance**

Parameter	Min	Тур	Max	Units
General				
Output Frequency	6.4		160	MHz
Operating Temperature		-20/+70 to -40/+85		°C
Frequency Stability				
Stability Over Temperature		±1.0 to ±0.28		ppm
Initial Accuracy (25°C ±2°C)			±1.0	ppm
Power Supply Stability (±5% Change)			±0.2	ppm
Load Stability (±10% Change)			±0.1	ppm
Aging / year (after 30 days of operation)			±1.0	ppm/year
Package Size		14.4 x 9.5 x 5.9		mm
Supply				
Supply Voltage (Vdd)		+3.3 to +5.0		V
Supply Current			35	mA
Tuning				
Tuning (Pull) Range		±5 to ±8		ppm
Tuning Slope		Positive		
Control Voltage to reach Pull Range	0.3		3	V
Linearity		< 10		%
Control Voltage Impedance	10			ΚΩ
Output				
Output Signal		Sine Wave		
Output Power	0	3	6	dBm
Output Load		50 Ω ± 10%		

Notes:



#### **Maximum Ratings**

X		
Storage Temp	-40°C to 105°C	
Supply Voltage	0V to +6.0V	
Output Load	50 pF	
End Max Batings		

#### **Maximum Ratings Notes:**

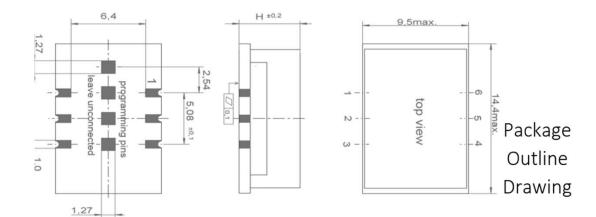
- 1 Stresses in excess of the absolute maximum ratings can permanently damage the device.
- 2 Exposure to absolute maximum ratings for extended periods may adversely affect device reliability.

## **Package Information**

Pin #	Function
Pin 1	Vc = Control Voltage or NC
Pin 2	NC = Make No Connection
Pin 3	GND = Ground
Pin 4	OUT = Output
Pin 5	NC = Make No Connection
Pin 6	Vdd = Supply Voltage
End Die	

#### Package and Assembly Notes:

1 H = 5.9 mm



## Handling and Construction

Package Construction	FR4 base with metal cover
Washable	non-washable device
RoHS compliance	100% ROHS 6 compliant
Moisture Sensitivity Level	MSL 1
ESD	HBM JESD22-A114-F Class 1C 10* 2000V
End Handling	



**Ordering Information** 

MV·	TS644-149	95X -	хххх	-	xxMxxxx
TCXO, Sine	Wave		1234		Frequency
14.4 x 9.5	x 5.9mm, 6 Pins —				
(1) Voltage A: 5.0 V B: 3.3 V	(2) Temp Range H: -20/+70 °C K: -40/+85 °C	(3) Temp Stability Q: ±1.0 ppm R: ±0.5 ppm S: ±0.28 ppm	(4) Tuning Range X: No Tuning L: ±5 ppm K: ±8 ppm		

## Part Number Configuration Notes:

- 1 Freq Tuning (EFC) only available from 6.4MHz to 26MHz
- 2 For stability under ±0.5ppm, only ±5ppm EFC available