

SMT STRATUM 3 DIGITAL TCXO 101 SERIES

■ FEATURES:

- Fully meeting free run frequency accuracy and 24 hours maximum frequency drift requirements for STRATUM 3 according to Telecordia GR-1244-CORE (Issue 2)*
- Very low power consumption suitable for portable and/or battery operated equipment

■ ELECTRICAL SPECIFICATION**

PARAMETER	SYMBOL	CONDITIONS	VALUE	UNIT
Supply voltage, nom.	Vs	Vs±5%	3.0 5.0	V
Supply current, max.	Is	Vs, nom. / Ta=25°C	2.0 to 15.0	mA
Frequency, nom.	fo	-	10.000 to 40.000	MHz
Overall frequency stability over 10 years of operation including Initial Frequency Calibration	$\Delta f_c/f_o$	Ta=-40°C to + 85°C	±4.6	ppm
Frequency drift during 24 hours of continuous operation, max (See note 1)	$\Delta f_c/f_o$	Ta=-40°C to + 85°C or Ta 0°C to + 70°C	±0.37	ppm
Temperature Stability (See note 2)		Ta=-40°C to + 85°C	±0.30	ppm
		Ta=0°C to + 70°C	±0.28	ppm
Control voltage range (see note 3)	Vc	-	+0.25...+2.25	V
Frequency Adjustment Range (see note 3)	$\Delta f/f_o$ (Vc)	Vc= 0.25V	-5 ...-10	PPM
		Vc= Vs-0.25V	+5 ...+10	PPM
Voltage control (pin 1) input impedance, min. (see note 3)	Z _{in}	-	100	kΩ
Jitter (peak to peak), max (F _{nom} = 20 MHz)	J(f)	Offset Δf = 12kHz to 20MHz	10	ps
Phase noise SSB @ freq.offset, max (F _{nom} = 20 MHz)	£ (Δf)	Δf=10Hz	-80	dBc/Hz
		Δf=100Hz	-110	dBc/Hz
		Δf=1kHz	-130	dBc/Hz
		Δf ≥ 10kHz	-145	dBc/Hz
HCMOS output levels Clipped Sine	VOH/VOL	Load = 15pF	0.9V _{cc} / 0.1V _{cc}	V
	V _{out}	Load=10 kΩ 20pF	0.7	V _{p-p}

■ ENVIRONMENTAL SPECIFICATION

Storage temperature range	-	-45°C....+85°C	
Vibration	-	IEC 68-2-6, test Fc: 10..500 Hz, 10g, 2 h, 3 directions	All parameters within initial limits
Mechanical shocks	-	IEC 68-2-27, test Ea: 100g, ½ sine, 3 bumps, 6 directions	All parameters within initial limits

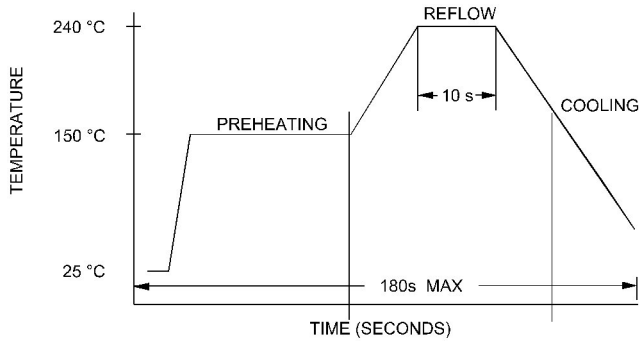
Notes:

1. The 24 hours drift can be measured any time after minimum 1 hour from initial turn on. Please contact factory for details.
2. The Temperature Stability is calculated with regard to frequency reading at 25°C±1°C.
3. Parameter relevant only to products with TY prefix.

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** This specification is typical. Other frequencies, output types and custom parameters are available. Please, contact factory for details.

REFLOW PROFILE

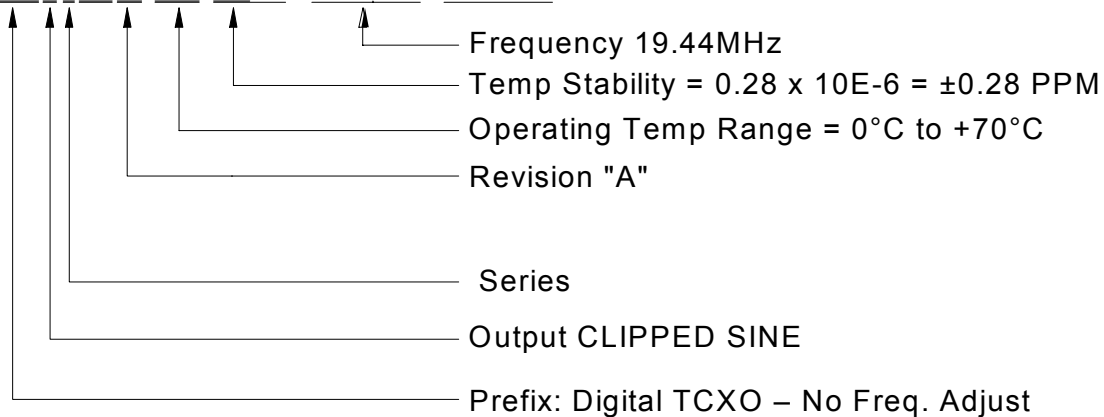


HOW TO ORDER (PART NUMBER)

Prefix	Output Type	Series	Revision	Temperature Range	Stability	Frequency
TU; No Freq. Adjust option TY; With Freq Adjust	0: CLIPPED SINE 2:HCMOS 4:LVC MOS	101	A	First letter Lowest Temperature, Second letter Highest Temperature: LZ: +0°C to +70°C D3: -40°C to +85°C	Value x 10E-6 Example 0.28= 0.28PPM 0.5= 0.5PPM	In MHZ

Example:

TU0101A-LZ- 0.28 -19.440 - STR3 ← Stratum 3



MECHANICAL SPECIFICATION

