

SMD STRATUM 3 DIGITAL (VC) TCXO, TU102 AND TY102 SERIES

■ FEATURES:

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

■ ELECTRICAL SPECIFICATION**

PARAMETER	SYMBOL	CONDITIONS	VALUE	UNIT
Supply voltage, nom.	V _s	V _s ±5%	3.3 5.0	V
Supply current, max.	I _s	V _s , nom. / T _a =25°C	12.0 to 20.0	mA
Frequency, nom.	f _o	-	10.000 to 40.000	MHz
Overall frequency stability over 10 years of operation including Initial Frequency Calibration	Δf _c /f _o	T _a =-40°C to + 85°C or T _a = 0°C to + 70°C	±4.6	ppm
Frequency drift during 24 hours of continuous operation, max (See note 1)	Δf _c /f _o	T _a =-40°C to + 85°C or T _a = 0°C to + 70°C	±0.37	ppm
Temperature Stability (See note 2)		T _a =-40°C to + 85°C or T _a =0°C to + 70°C	±0.30 ±0.28	ppm
Frequency Adjustment Range (see note 3)	Δf/f _o (V _c)	V _c = 0.25V V _c = 2.25V	-5 ... -10 +5 ... +10	PPM PPM
Voltage control (pin 4) 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)	ε (Δf)	Δf=10Hz Δf=100Hz Δf=1kHz Δf ≥ 10kHz	-80 -110 -130 -145	dBc/Hz dBc/Hz dBc/Hz dBc/Hz
HCMOS output levels Clipped Sine	V _{OH} /V _{OL} V _{out}	Load = 15pF Load=10 kΩ 20pF	0.9V _{cc} / 0.1V _{cc} 0.7	V 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

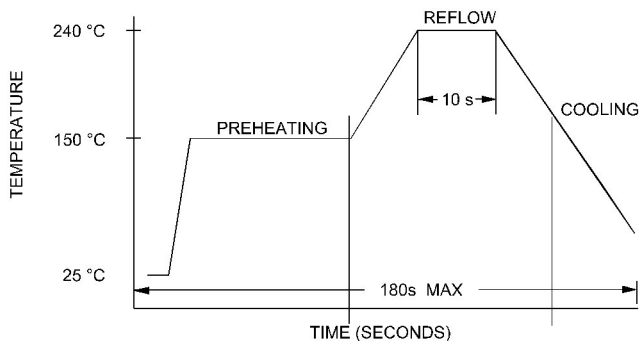
Notes:

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. TY102 series only.

* Telecordia is a trademark of Telecordia Technologies

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

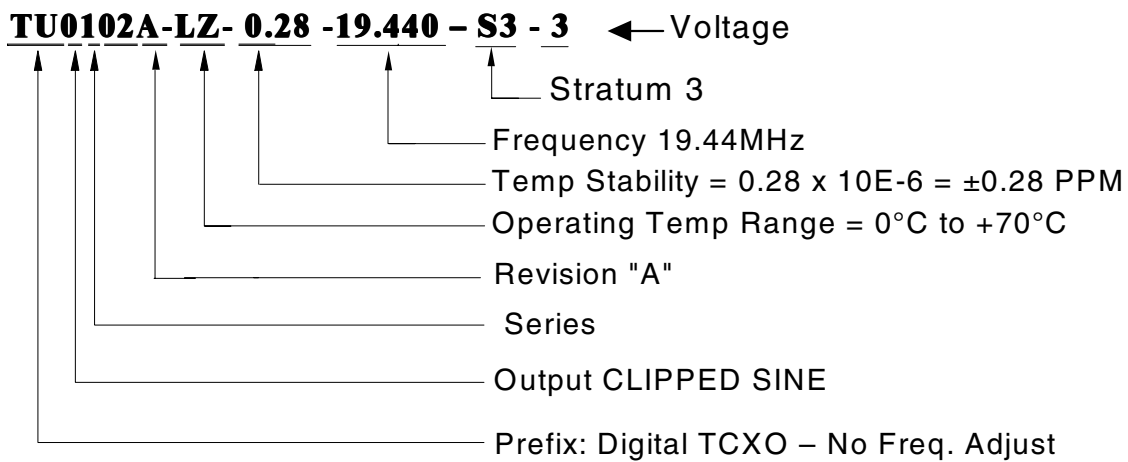
■ REFLOW PROFILE



■ HOW TO ORDER (PART NUMBER)

Prefix	Output Type	Series	Revision	Temperature Range	Stability	Frequency	Stratum3	Voltage
TU: No Freq. Adjust option TY: With Freq Adjust	0: CLIPPED SINE 2:HCMOS 4:LVC MOS	102	A	LZ: 0°C to +70°C D3: -40°C to +85°C	0.28= 0.28PPM 0.3= 0.3PPM	In MHZ	S3	3: 3.3V 5: 5.0V

Example:



■ MECHANICAL SPECIFICATION

