

● FEATURES

- TEMPERATURE STABILITY $\pm 0.5\text{ppm} \sim \pm 2.5\text{ppm}$
- OPERATING TEMPERATURE RANGE $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
- VOLTAGE CONTROL AVAILABLE (RTV-104 SERIES)



● SPECIFICATIONS

PARAMETER		VALUE
FREQUENCY RANGE		10 ~ 52 MHz
SUPPLY VOLTAGE		1.8, 3.3, 1.8 ~ 3.3 V
INPUT CURRENT	10 ~ 25 MHz	2.0 mA max
	25 ~ 52 MHz	2.5 mA max
FREQUENCY STABILITY	vs. TEMPERATURE	$\pm 0.5 \sim \pm 2.5$ ppm
	vs. LOAD ($\pm 10\%$)	± 0.2 ppm max
	vs. SUPPLY VOLTAGE	± 0.2 ppm max
	AGING 1 st YEAR	± 1.0 ppm max
FREQUENCY TOLERANCE at 25°C AFTER 2 REFLOWS		± 2.0 ppm max
OPERATING TEMPERATURE RANGE ¹		$-40 \sim +85^{\circ}\text{C}$
STORAGE TEMPERATURE RANGE		$-40 \sim +85^{\circ}\text{C}$
CLIPPED SINEWAVE OUTPUT VOLTAGE		0.8 V _{P-P} typ
OUTPUT LOAD		10 k Ω // 10 pF
START-UP TIME		5 ms max
FREQUENCY TUNING RANGE ²		$\pm 8 \sim \pm 15$ ppm
PHASE NOISE at 1 kHz OFFSET		-130 dBc/Hz max



NOTE: 1. NOT ALL STABILITIES ARE AVAILABLE FOR ALL OPERATING TEMPERATURE RANGES. CONTACT FACTORY FOR AVAILABILITY.

2. RTV ONLY; OTHER RANGES AVAILABLE

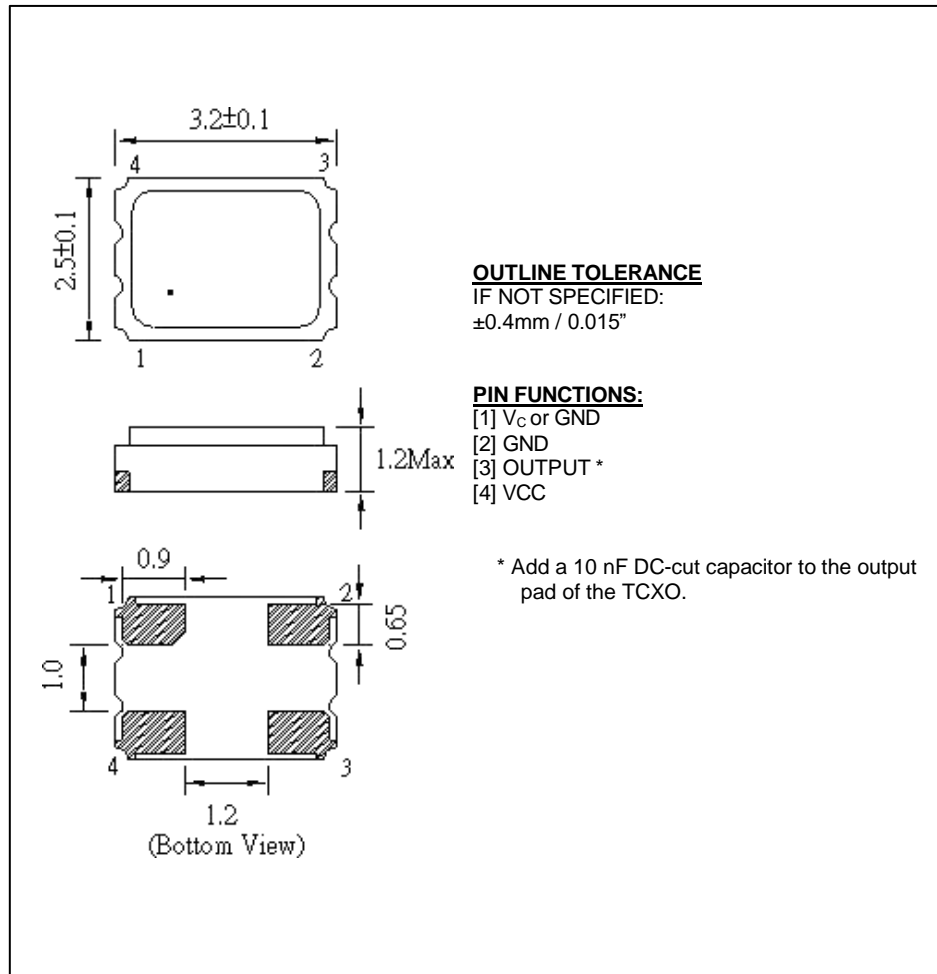
■ PART NUMBERING SYSTEM

TYPE	-	SERIES	STABILITY (ppm)	TEMP RANGE (°C)	VOLTAGE (V)	FREQ TUNING RANGE (ppm)	-	OUTPUT	-	FREQ (MHz)	-	TAPE & REEL
RTX (TCXO) RTV (VCTCXO)	-	104	A: ± 0.5 B: ± 1.0 C: ± 1.5 D: ± 2.0 E: ± 2.5	LZ: 0 ~ +70 HZ: -20 ~ +70 F3: -30 ~ +85 D3: -40 ~ +85	1: 1.8 33: 3.3 F: 1.8 ~ 3.3	RTX: Blank RTV: Y: $\pm 8 \sim \pm 15$	-	S: Clipped Sine wave	-	-	-	TR

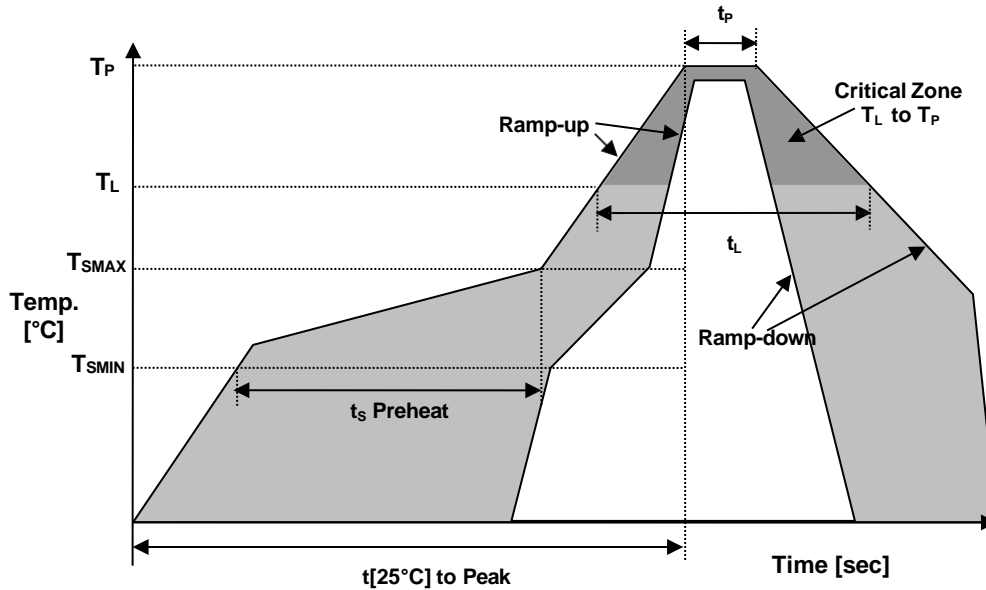
EXAMPLE: RTX-104AF333-S-48.000-TR

Surface Mount TCXO, 3.2 mm x 2.5 mm package, ± 0.5 ppm Stability over the Operating Temperature Range from -30°C to $+85^{\circ}\text{C}$, 3.3V, Clipped Sinewave, 48.000 MHz, Tape and Reel Packaging

- MECHANICAL SPECIFICATIONS



- REFLOW PROFILE



Reflow profile		
Temperature Min Preheat	T_{SMIN}	150°C
Temperature Max Preheat	T_{SMAX}	200°C
Time (T_{SMIN} to T_{SMAX})	t_s	60-180 sec.
Temperature	T_L	217°C
Peak Temperature	T_P	260°C
Ramp-up rate	R_{UP}	3°C/sec max.
Ramp-down rate	R_{DOWN}	6°C/sec max.
Time within 5°C of Peak Temperature	t_p	10 sec.
Time $t[25°C]$ to Peak Temperature	$t[25°C]$ to Peak	480 sec.
Time	t_L	60-150 sec.

- ENVIRONMENTAL

PARAMETER	VALUE
MOISTURE SENSITIVITY LEVEL	1
RoHS	COMPLIANT
REACH SVHC	COMPLIANT
HALOGEN-FREE	COMPLIANT
TERMINATION FINISH	Au



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