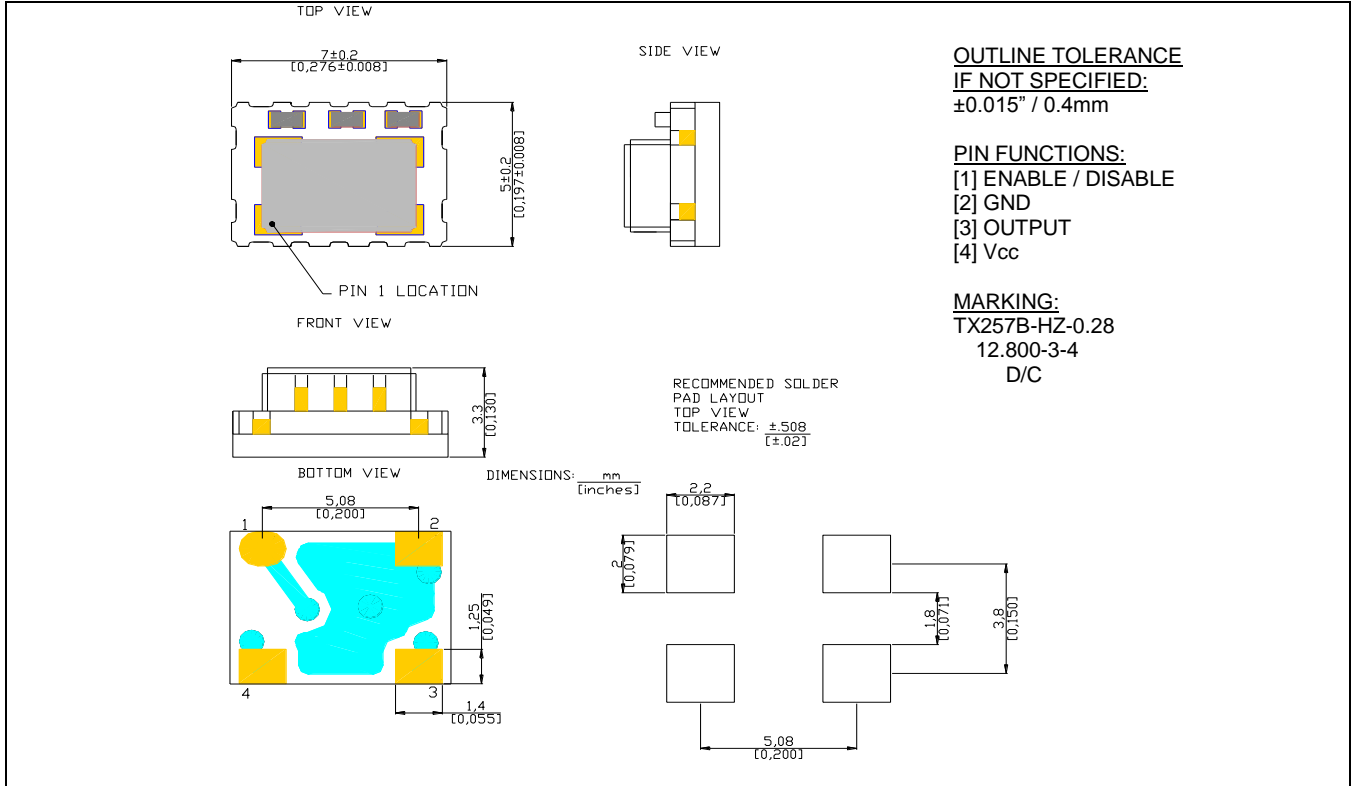


TX257A-LZ-0.28-25.000-3-4-TR



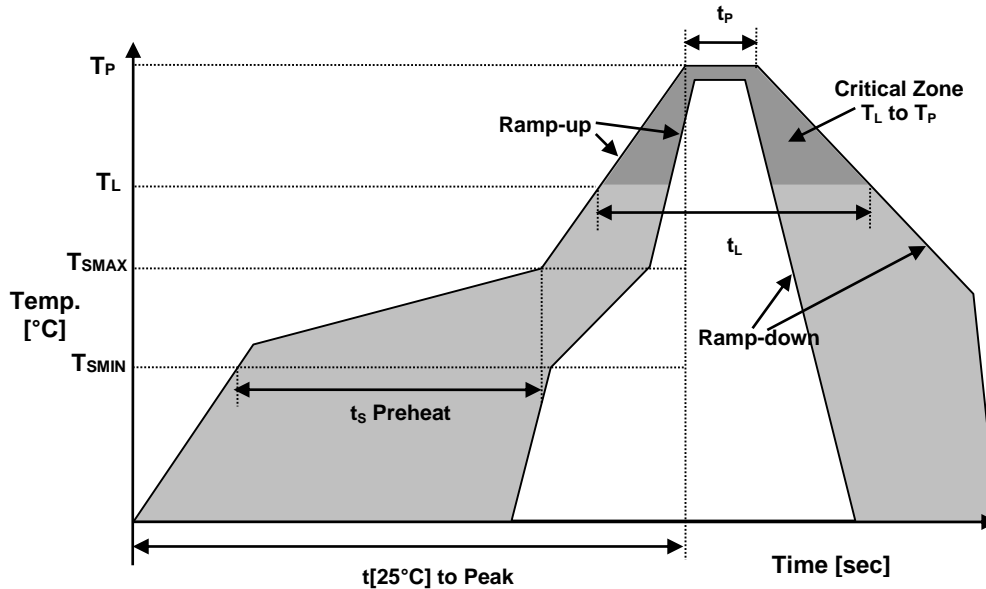
MECHANICAL SPECIFICATION



ELECTRICAL SPECIFICATION

PARAMETER	SYMBOL	CONDITIONS	VALUE	UNIT
Frequency range	f_o		25.000	MHz
Supply voltage, nom.	V_{CC}		3.3	V
Supply current, max	I_s		10	mA
HCMOS Output Levels	V_{OH} / V_{OL}	min/max , 15pF load	0.9Vcc / 0.1Vcc	V
Duty cycle	DC	Load = 15pF	45/55	%
Rise / fall time, max.	t_r / t_f	10% - 90%	5	ns
Start up time	t_s	Typical	3	ms
Enable / Disable	E/D	Min / Max	0.8 (Vcc) / 0.2(Vcc)	Vdc
Initial Frequency Calibration	f_c	Measures at 25°C	±1.00	ppm
Stability vs. Supply Voltage change	f_v	$V_{CC} \pm 5\%$	±0.20	ppm
Stability vs. Load change	f_L	$V_{CC} \pm 10\%$	±0.20	ppm
Stability over operating temperature	$\Delta f/f_c(T)$	Referenced at 25°C	±0.28	ppm
Overall freq. stability, max.	$\Delta f/f_c$	Including 20 years of aging	±4.60	ppm
Long term stability, ageing after 30 days of operation, max	$\Delta f/f_c (\Delta t)$	$\Delta t = 1$ day	±0.020	ppm
Holdover stability			±0.37	ppm
Operating temperature	T_a		0 ~ +70	°C
Storage temperature	$T(stg)$	Absolute max	-55°C~ +125°C	°C
Phase noise @ freq. offset, typical.	$\mathcal{L}(\Delta f)$	$\Delta f=100\text{Hz}$	-120	dBc/Hz
	$\mathcal{L}(\Delta f)$	$\Delta f=1\text{kHz}$	-140	dBc/Hz
	$\mathcal{L}(\Delta f)$	$\Delta f=10\text{kHz}$	-150	dBc/Hz

■ REFLOW PROFILE



Reflow profile IPC/JEDEC J-STD-020 REV. C		
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 $t_{[25^\circ\text{C}]}$ to Peak Temperature	$t_{[25^\circ\text{C}]}$ to Peak	480 sec.
Time	t_L	60-150 sec.

■ APPROVALS

RALTRON	
Eng. approval, date:	CP, December 04, 2015
Created by, date:	CP, December 04, 2015
Revision:	B