

Travelling Merchant: _____

DATASHEET

Standard: **T75B-K319-25.00MHz-X337**

P/N: _____

| Plot | | | The Label |
|------------------|---------|----------|------------------------|
| Drew | Audited | Approved | Stamp, please! Thanks! |
| | | | |
| Date: 2024.10.08 | | | |

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1. Electrical Parameters

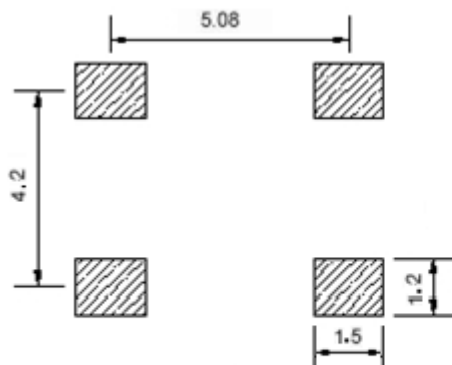
| MODEL: T75B-K319-25.00MHz-X337 | | | | | | |
|--------------------------------|---|------------|-------|------------------|---|---|
| Item | Description | Parameters | | | Unit | Test Condition |
| | | Min. | Typ. | Max. | | |
| Output | Frequency | 25.00 | | | MHz | |
| | Output Waveform | HCMOS | | | | |
| | Output Low Voltage | | | 0.33 | V | $V_{cc}=3.3V, O_{load}=15\text{ pF}$ |
| | Output High Voltage | 2.97 | | | V | $V_{cc}=3.3V, O_{load}=15\text{ pF}$ |
| | Duty Cycle | 45 | 50 | 55 | % | @50% |
| | Rise / Fall Time (10%~90%) | | | 6 | ns | @25°C |
| | Start up time | | | 2.0 | ms | |
| | Load | 15 | | | pF | |
| Frequency Stabilities | Frequency Tolerance vs. Operating Temperature Range | -0.28 | | +0.28 | $\times 10^{-6}$ | T_A varied from -40°C to 85°C, measurement referenced to frequency observed with $f_{ref}=(f_{max}+f_{min})/2, V_{cc}=3.3V, O_{load}=15\text{ pF}$, temperature variable speed less than 2°C per minute. |
| | Nominal Frequency Tolerance | -1.0 | | +1.0 | $\times 10^{-6}$ | Frequency at 25°C, 1 hour after reflow |
| | Root Allan variance | | | 1.0 | $\times 10^{-9}$ | Tau=100ms |
| | Frequency Drift | | | 20 | $\times 10^{-9}$ pk-pk | over 1hr after warm-up 15 min. @ fixed temp. |
| | | | | 40 | $\times 10^{-9}$ pk-pk | over 24hrs after warm-up 1hr @ fixed temp. |
| | Frequency stability (Overall) | -4.6 | | +4.6 | $\times 10^{-6}$ | Inclusive of calibration @25°C, frequency stability over temperature, supply voltage $V_{cc}\pm 5\%, \pm 10\%$ load change, reflow soldering and 20 years aging. |
| Holdover | -0.32 | | +0.32 | $\times 10^{-6}$ | Including 24hrs aging, supply voltage $V_{cc}\pm 5\%$ and frequency stability over temperature. | |



| | | | | | | |
|--------------------------|--|--|-----|------|--------|--|
| Power Supply | Current Consumption | | | 6 | mA | @25°C, V _{cc} =3.3V, O _{Load} =15pF. |
| | Supply Voltage | 3.13 | 3.3 | 3.47 | V | |
| Phase Noise | Phase Noise | | | -85 | dBc/Hz | 10Hz |
| | | | | -115 | | 100Hz |
| | | | | -138 | | 1KHz |
| | | | | -150 | | 10KHz |
| | | | | -152 | | 100KHz |
| Environmental Conditions | Operable Temperature | -40 | | +85 | °C | |
| | Storage Temperature | -55 | | +105 | °C | |
| | ESD Level | Human Body Model,class2: 2000V to 4000V; ANSI/ESDA/JEDEC JS-001-2010. | | | | |
| | | Machine Model, class B: 200V to 400V; JEDEC JESD22-A115C. | | | | |
| | Moisture Sensitivity Level | Level 2. | | | | |
| | Vibration | Test Condition: 0.75mm ;acceleration:10g;10Hz~2000Hz, one cycle per 30 min, test 2 hour. (3 times for each 3 directions X , Y , Z) .IEC 68-2-06 Test Fc. | | | | |
| Shock | 100g; 6ms; half sine wave (3 times for each 3 directions X , Y , Z),IEC 68-2-27 Test Ea/Severity 50A. | | | | | |
| Full Package Storage | Relative humidity (%) | 20% ~ 70% | | | | |
| | Temperature (°C) | -10~35°C | | | | |



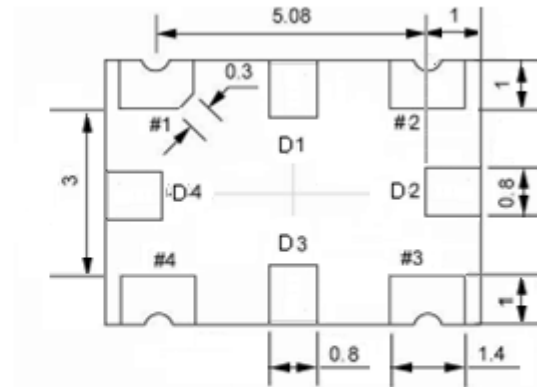
2. Mechanical Structure(mm)



Solder pad layout



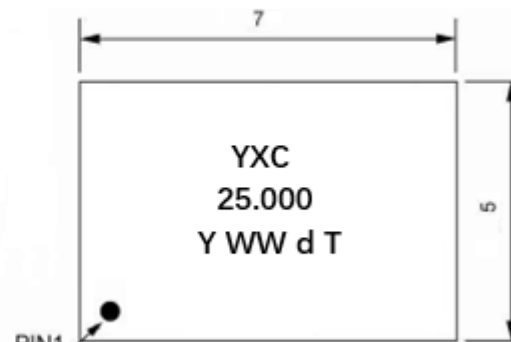
Right view



Bottom view



Side view



Top view

PIN FUNCTION

| PIN | NOTATION | FUNCTION |
|----------------|----------|----------------|
| D1, D2, D3, D4 | NC | Not Connect |
| 1 | NC | Not Connect |
| 2 | GND | GND |
| 3 | OUTPUT | RF Output |
| 4 | VCC | Supply Voltage |

Note1: Tolerance $\pm 0.3\text{mm}$ without mark

Note2: The first Y representative: year
After two WW representative: week

Note3: Referential weight 0.2g

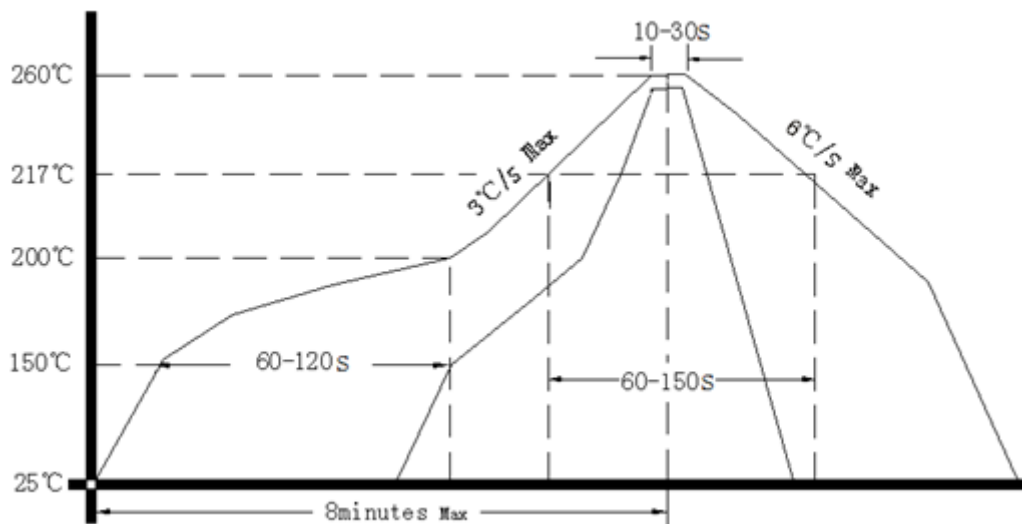
Note4: NC is not connect



3. Test circuit



4. Reflow Soldering Curve (RoHS)



Note: If soldering with a hot air gun, ensure the temperature < 320°C , soldering time < 15 seconds.

5. Package: Tape & Reel (mm)

