

Travelling Merchant: _____

DATASHEET

Standard: **T75B-H513-40.00MHz-K**

P/N: _____

| Plot | | | The Label |
|------------------|---------|----------|------------------------|
| Drew | Audited | Approved | Stamp, please! Thanks! |
| | | | |
| Date: 2021.11.10 | | | |

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1. Electrical Parameters

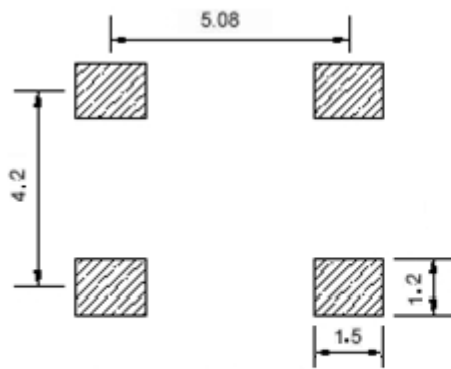
| MODEL: T75B-H513-40.00MHz-K | | | | | | |
|-----------------------------|-----------------------------------------------------|-------------------|------|-------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Item | Description | Parameters | | | Unit | Test Condition |
| | | Min. | Typ. | Max. | | |
| Output | Frequency | 40.00 | | | MHz | |
| | Output Waveform | Clipped Sine Wave | | | | |
| | Vp-p | 0.8 | | | V | |
| | Load | 10KΩ//10pF | | | | |
| Frequency Stabilities | Frequency Tolerance vs. Operating Temperature Range | -2.5 | | +2.5 | $\times 10^{-6}$ | T_A varied from -55°C to 85°C , measurement referenced to frequency observed with $f_{\text{ref}}=(f_{\text{max}}+f_{\text{min}})/2$, $V_{\text{cc}}=3.3\text{V}$, $V_c=1.65\text{V}$, $O_{\text{load}}=10\text{K}\Omega//10\text{pF}$, temperature variable speed less than 2°C per minute. |
| | Nominal Frequency Tolerance | -1 | | +1 | $\times 10^{-6}$ | Measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}$, $V_{\text{cc}}=3.3\text{V}$, $V_c=1.65\text{V}$ within 30 days after ex-works. |
| | Frequency Tolerance vs. Supply Voltage | -0.5 | | +0.5 | $\times 10^{-6}$ | measurement referenced to frequency observed $T_A=25^{\circ}\text{C}$, V_{cc} varied from 3.13V to 3.47V, $V_c=1.65\text{V}$ and $O_{\text{Load}}=10\text{K}\Omega//10\text{pF}$. |
| | Frequency Tolerance vs. Load | -0.5 | | +0.5 | $\times 10^{-6}$ | 5% load change measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}$, $V_{\text{cc}}=3.3\text{V}$, $V_c=1.65\text{V}$ and $O_{\text{Load}}=10\text{K}\Omega//10\text{pF}$. |
| | Aging Tolerance Per Day | -0.02 | | +0.02 | $\times 10^{-6}$ | $T_A=25^{\circ}\text{C}$, $V_{\text{cc}}=3.3\text{V}$, $V_c=1.65\text{V}$ and after 1h of operation. |
| | Aging Tolerance 1 Year | -1 | | +1 | $\times 10^{-6}$ | |
| Power Supply | Operating Current | | | 10 | mA | @ 25°C , $V_{\text{cc}}=3.3\text{V}$, $V_c=1.65\text{V}$, $O_{\text{Load}}=10\text{K}\Omega//10\text{pF}$. |
| | Supply Voltage | 3.13 | 3.3 | 3.47 | V | |
| Voltage Control | Frequency tuning range | -15 | | -9 | $\times 10^{-6}$ | $V_c=0\text{V}$. Measurement referenced to $V_c=1.65\text{V}$. |
| | | -1 | | +1 | $\times 10^{-6}$ | $V_c=1.65\text{V}$. Measurement referenced to Exactly40.00MHz. |
| | | +9 | | +15 | $\times 10^{-6}$ | $V_c=3.3\text{V}$. Measurement referenced to $V_c=1.65\text{V}$. |
| | Linearity | | | 10 | % | |
| | Slope | Positive | | | | |
| | Input Impedance | 100 | | | KΩ | |



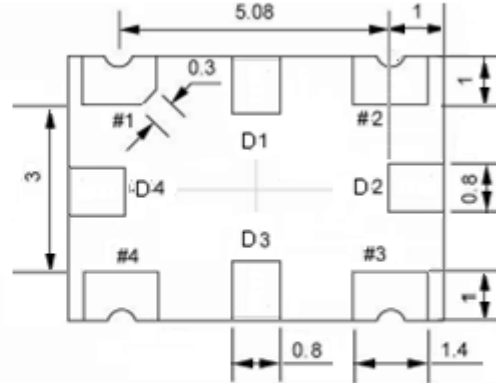
| | | | | | | |
|-----------------------------|---------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|--------|--------|
| Phase Noise | Phase Noise @25°C | | -75 | -70 | dBc/Hz | 10Hz |
| | | | -105 | -100 | | 100Hz |
| | | | -130 | -125 | | 1KHz |
| | | | -145 | -140 | | 10KHz |
| | | | -150 | -145 | | 100KHz |
| | | | -150 | -145 | | 1MHz |
| Environmental Conditions | Operable Temperature | -55 | | +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 3. | | | | |
| | 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. | | | | | |



2. Mechanical Structure(mm)



Solder pad layout



Bottom view



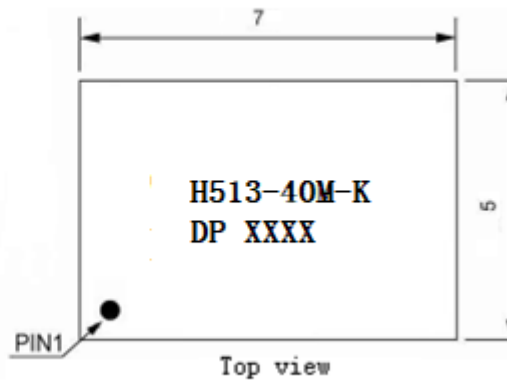
Right view



Side view

PIN FUNCTION

| PIN | FUNCTION |
|-------------|----------|
| D1,D2,D3,D4 | NC |
| 1 | VC |
| 2 | GND |
| 3 | OUTPUT |
| 4 | VCC |



Top view

Note1: Tolerance $\pm 0.2\text{mm}$ without mark

Note2: The first two xx representative: week

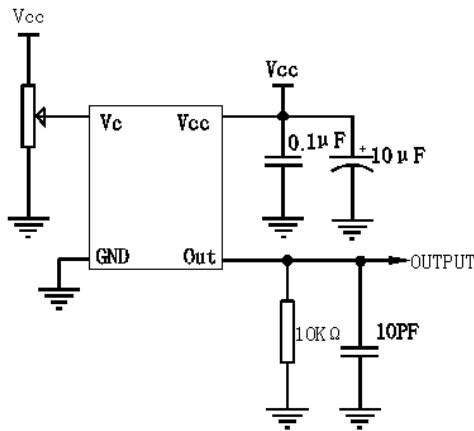
After two xx representative: year

Note3: Referential Weight 0.2g

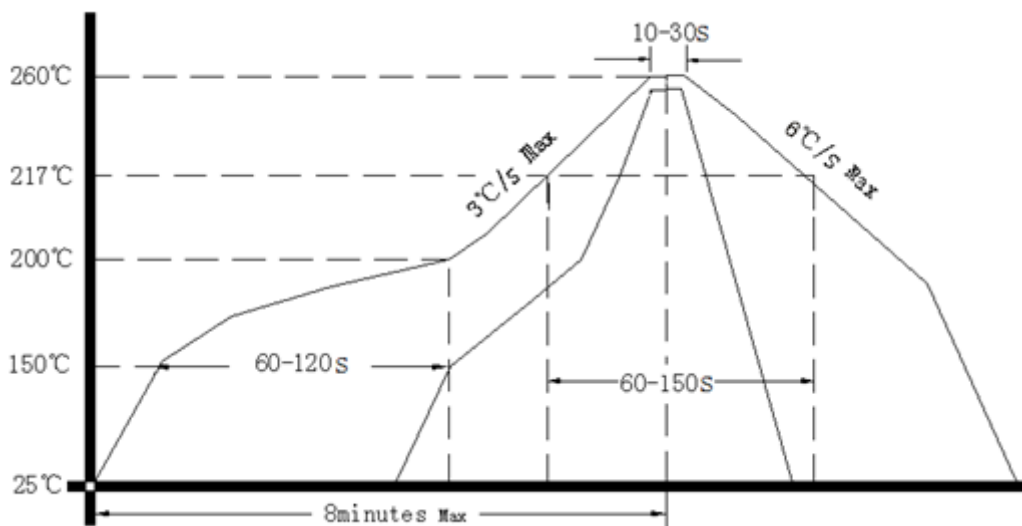
Note4: NC is not connect



3. Test Circuit



4. Reflow Soldering Curve (RoHS)



5. Package: Tape & Reel (mm)

