



PSE Technology Corporation

SPECIFICATION FOR APPROVAL

CUSTOMER _____

NOMINAL FREQUENCY 32.000000 MHz

PRODUCT TYPE TYPE WT 3.2X2.5 TEMPERATURE COMPENSATED CRYSTAL OSCILLATOR

SPEC. NO. (P/N) WT325BI0032.000000

CUSTOMER P/N _____

ISSUE DATE November 10, 2012

VERSION 02

| APPROVED | PREPARED | QA |
|--|---------------|------------------|
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| APPROVED BY CUSTOMER : | | AVL Status |
| Please return one copy with approval to PSE-TW | | |

PSE Technology Corporation

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- *Pb-free
- *RoHS Compliant
- *HF-Halogen Free
- *REACH Compliant

*** A company of  PERICOM Semiconductor Corporation ***

Pericom Internal Reference NO. WT3532005A

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WT325BI0032.000000

VER. 02 10-Nov-12

ELECTRICAL SPECIFICATIONS

SRe Part Number : WT325BI0032.000000

| Item | Symbol | Specifications | Units | Notes |
|--------------------------------|-----------------|------------------|--------|--|
| Nominal Frequency | F _o | 32.000000 | MHz | |
| Operating Temperature Range | TR | -30 to +85 | °C | |
| Storage Temperature Range | | -40 to +85 | °C | |
| Supply Voltage | V _{DD} | +3.0 ± 5.0% | V | |
| Frequency Stability | FT | ± 2.0 | ppm | vs. Temperature (Refer to the mid-point between minimum and maximum frequency values over the specified temperature range) |
| Frequency Stability | | ± 0.2 | ppm | vs. Load varied 10pF//10kΩ±10% |
| Frequency Stability | | ± 0.1 | ppm | vs. Supply Voltage varied V _{DD} ±5% at 25°C |
| Frequency Tolerance | | ± 2.0 | ppm | Max. After 2 times reflow (Refer to nominal frequency) |
| Frequency Slope | | ± 0.3 | ppm/°C | Max. (measurement every 2°C from -30°C to +85°C) |
| Static Temperature Hysteresis | | ± 0.6 | ppm | Max. |
| Aging | | ±1 | ppm | per year at 25°C |
| Logic Type | LT | Clipped Sinewave | | |
| Supply Current | I _{DD} | 2.1 | mA | Max. |
| Start Up Time v.s Output Level | | 2.5 | msec | Max, 90% of specified output level |
| Output Voltage | | 0.8 to 1.4 | Vp-p | |
| Output Load Resistance | | 10 | | 9KΩ Min / 11KΩ Max |
| Output Load Capacitance | | 10 | pF | 9pF Min / 11pF Max |
| Harmonics | | -7 | dBc | Max. |
| Phase Noise | | -123 | dBc/Hz | Max, at 1kHz offset |

※ This product doesn't include harmful substance that stipulated by SONY SS-00259 Level 1 and S-AT2-001 Level 1 standard. RoHS Compliant (Pb - Free).

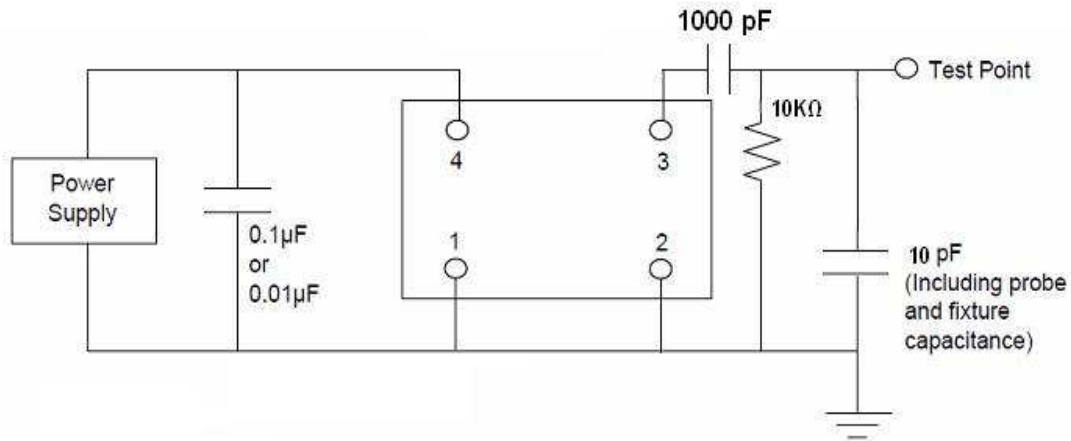


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WT325BI0032.000000

VER. 02 10-Nov-12

TEST CIRCUIT



RELIABILITY SPECIFICATIONS

ENVIRONMENTAL:

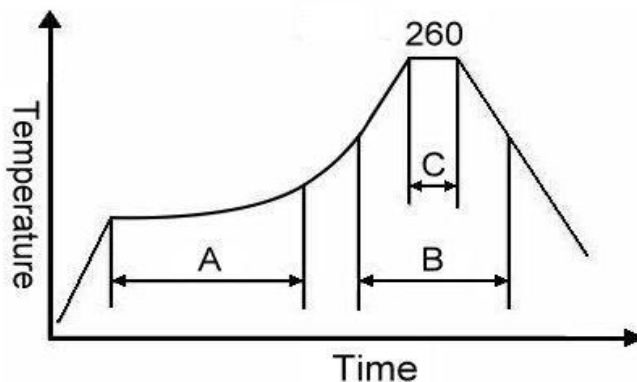
- THERMAL SHOCK: MIL-STD-883, Method 1011, Condition A
- MOISTURE RESISTANCE: MIL-STD-883, Method 1004
- VIBRATION: MIL-STD-883, Method 2007, Condition A
- RESISTANCE TO SOLDERING HEAT: J-STD-020D Table 5-2 Pb-free devices (except 2 cycles max)
- HAZARDOUS SUBSTANCE: Pb - free and RoHS Compliant.

MECHANICAL:

- SHOCK: MIL-STD-883, Method 2002, Condition B
- SOLDERABILITY: JESD22-B102-D Method 2 (Preconditioning E)
- TERMINAL STRENGTH: MIL-STD-883, Method 2004, Test Condition D
- GROSS LEAK: MIL-STD-883, Method 1014, Condition C
- FINE LEAK: MIL-STD-883, Method 1014, Condition A2, $R1=2 \times 10^{-8}$ atm cc/s
- SOLVENT RESISTANCE: MIL-STD-202, Method 215

SUGGESTED IR REFLOW PROFILE

*As per IPC-JEDEC J-STD-020D



Note:

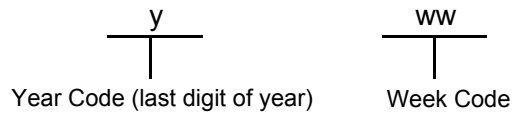
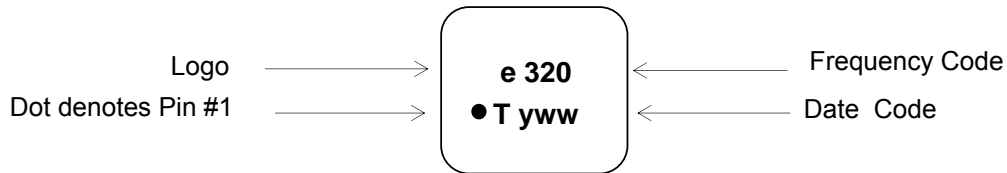
| | Stage | Temperature | Time |
|---|--------------|-------------|------------|
| A | Preheat | 150~200°C | 60~120 Sec |
| B | Primary Heat | 217°C | 60~150 Sec |
| C | Peak | 260°C | 10 Sec |

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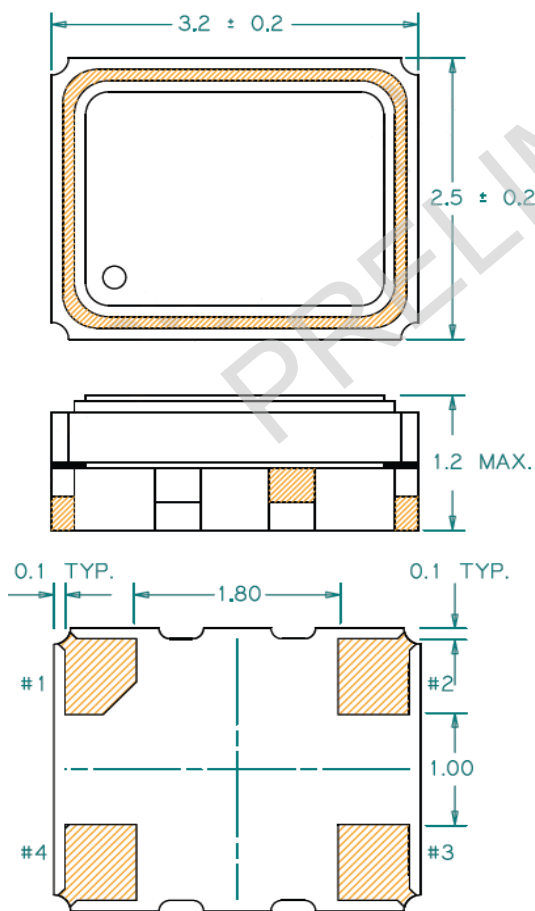
WT325BI0032.000000

VER. 02 10-Nov-12

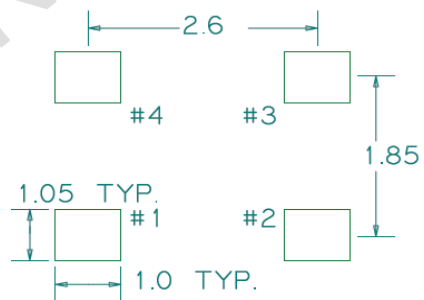
MARKING



MECHANICAL DRAWINGS (Scale: None. Dimensions are in mm.)



Recommended Land Pattern:



Pin Functions:

| Pin | Function |
|-----|-----------------|
| 1 | Ground |
| 2 | Ground |
| 3 | Output |
| 4 | V _{DD} |

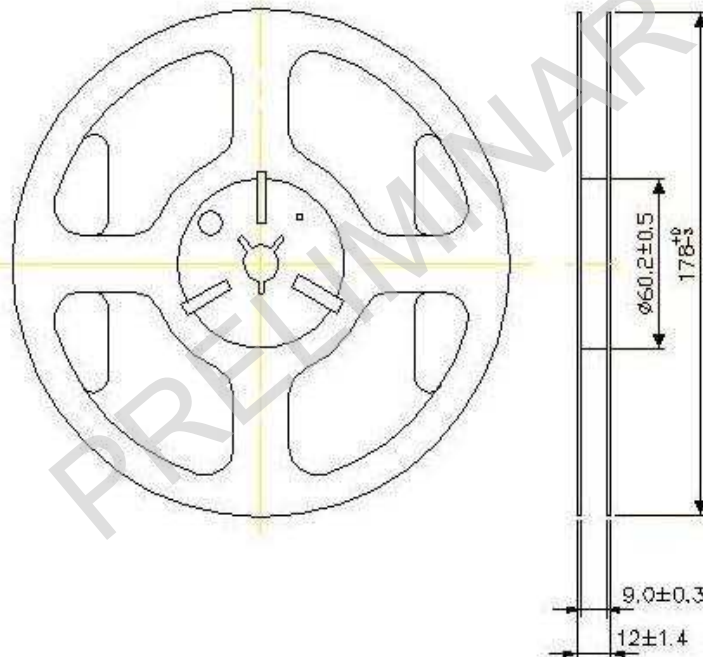
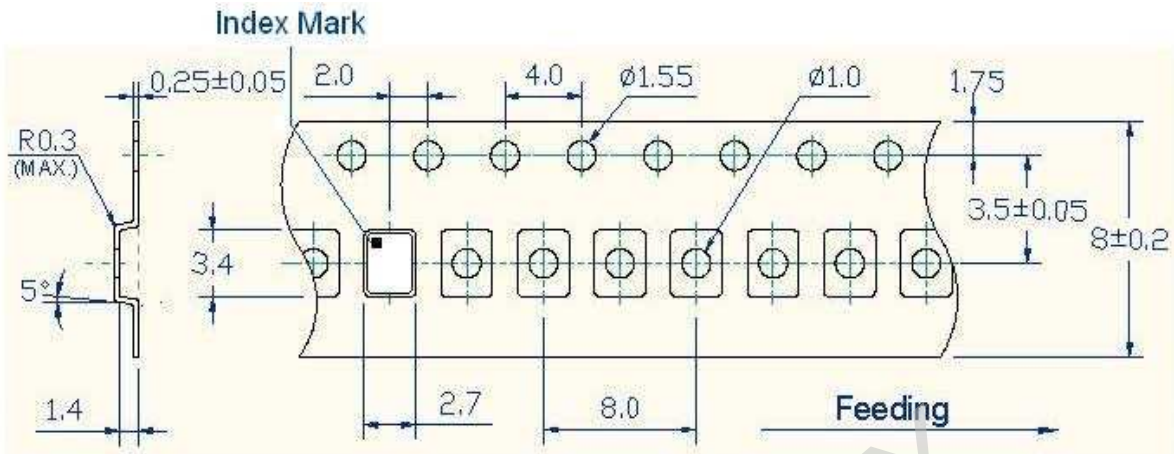
* NOTE
#1 pad. Must be connected to ground on your circuit, otherwise oscillation frequency will shift from the output frequency specified.

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WT325BI0032.000000

VER. 02 10-Nov-12

TAPE&REEL



1. 230mm minimum leader which consist of carrier and/or tape followed by a minimum of 160mm of empty carrier tape sealed with cover tape.
2. 160mm minimum trailer of empty carrier tape sealed with cover tape.

PACKING

