

HCMOS OUTPUT SMD TCXO



3.2 x 2.5 x 1.0mm

ASTX-H11



Moisture Sensitivity Level (MSL)-1

FEATURES:

- HCMOS Output
- Compact and low in height
- Low current consumption; IR reflow possible
- Suitable for high-density SMT

APPLICATIONS:

- Cellular and cordless phones
- Standard OSC for exact equipment
- Mobile communication equipment
- Portable radio equipment and music player

STANDARD SPECIFICATIONS:

| Parameters | Minimum | Typical | Maximum | Units | Notes |
|---|---|---------|---------|-------|----------------------|
| Frequency Range | 2.500 | | 55.000 | MHz | |
| Standard Frequencies | 5, 10, 12, 16, 20, 24, 32, 40, 44 | | | MHz | |
| Operating Temperature | -30 | | +75 | °C | |
| Storage Temperature: | -40 | | +125 | °C | |
| Frequency Stability $\Delta f/f_0$ vs Tolerance (@+25°C) | -2.0 | | +2.0 | ppm | 1 hr after reflow |
| vs Temperature (ref. to +25°C) | -2.5 | | +2.5 | | See option (Table 1) |
| vs Supply Voltage Change (Vdd±5%) | -0.2 | | +0.2 | | |
| vs Load Change (ZL±10%) | -0.2 | | +0.2 | | |
| vs Aging (first year @+25°C) | -1.0 | | +1.0 | | |
| Supply Voltage (Vdd) | +2.97 | +3.3 | +3.63 | V | See option |
| Supply Current (Icc) | | | 4.0 | mA | 4~10MHz |
| | | | 4.8 | | ~20MHz |
| | | | 5.5 | | ~30MHz |
| | | | 6.0 | | ~40MHz |
| | | | 7.0 | | ~54MHz |
| Rise and Fall Time (Tr/Tf) | | | 5 | ns | 10%-90%Vdd |
| Symmetry | 45 | | 55 | % | @1/2 Vdd |
| Output Voltage | V _{OH} | 90%Vdd | | V | |
| | V _{OL} | | 10%Vdd | | |
| Load | | | 15 | pF | |
| Waveform | HCMOS | | | | |
| Phase Noise (Frequency dependant) | | -130 | | dBc | @1kHz offset |
| | | -158 | | | @100kHz offset |
| Tri-state Function (Stand-by) : | "1" (VIH≥0.7 5*Vdd) or Open: Oscillation "0" (VIL<0.25*Vdd) : Hi Z | | | V | |



3.2 x 2.5 x 1.0mm

ASTX-H11



RoHS/RoHS II compliant

OPTIONS & PART IDENTIFICATION:

(Left blank if standard)

ASTX-H11- [] - [] MHz - [] - []

| Vdd (V) |
|-----------------|
| Blank: 3.3V±10% |
| A: 2.8V±10% |
| B: 2.5V±10% |

| Frequency in MHz |
|--|
| Please specify the frequency in MHz. e.g. 19.200MHz |

| Packaging |
|-----------------|
| Blank: Bulk |
| T: 1000pcs/reel |

| | ±2.5ppm | ±3.0ppm | ±4ppm | ±5ppm |
|---------------|------------|---------|-------|-------|
| 0°C ~ +50°C | D25 | D30 | D40 | D50 |
| -10°C ~ +60°C | E25 | E30 | E40 | E50 |
| -0°C ~ +70°C | F25 | F30 | F40 | F50 |
| -20°C ~ +75°C | G25 | G30 | G40 | G50 |
| -30°C ~ +75°C | Blank(STD) | H30 | H40 | H50 |
| -40°C ~ +85°C | I25 | I30 | I40 | I50 |

Table 1

OUTLINE DIMENSIONS:



Recommended Land Pattern



| Tri-state pin | Output |
|------------------|--------------|
| High or floating | Active |
| Low | Hi-impedance |

Note: Recommend using an approximately 0.01µF bypass capacitor between Pin 2 and 4.

| PIN | FUNCTION |
|-----|-----------|
| 1 | Tri-state |
| 2 | GND |
| 3 | Output |
| 4 | Vdd |

Dimensions: mm



ASTX-H11

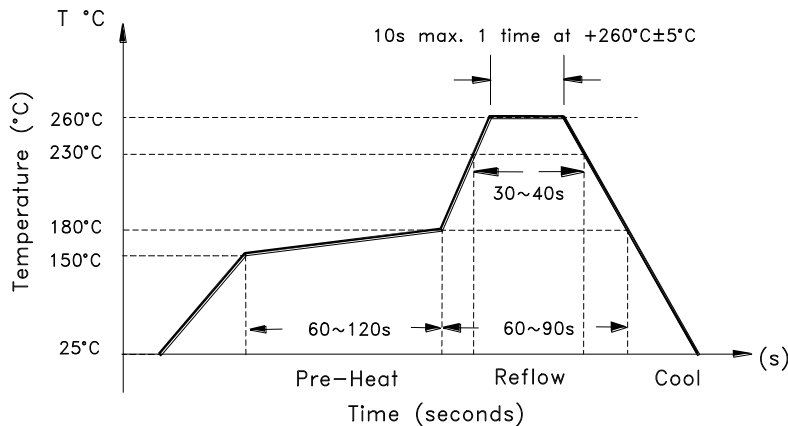
3.2 x 2.5 x 1.0mm

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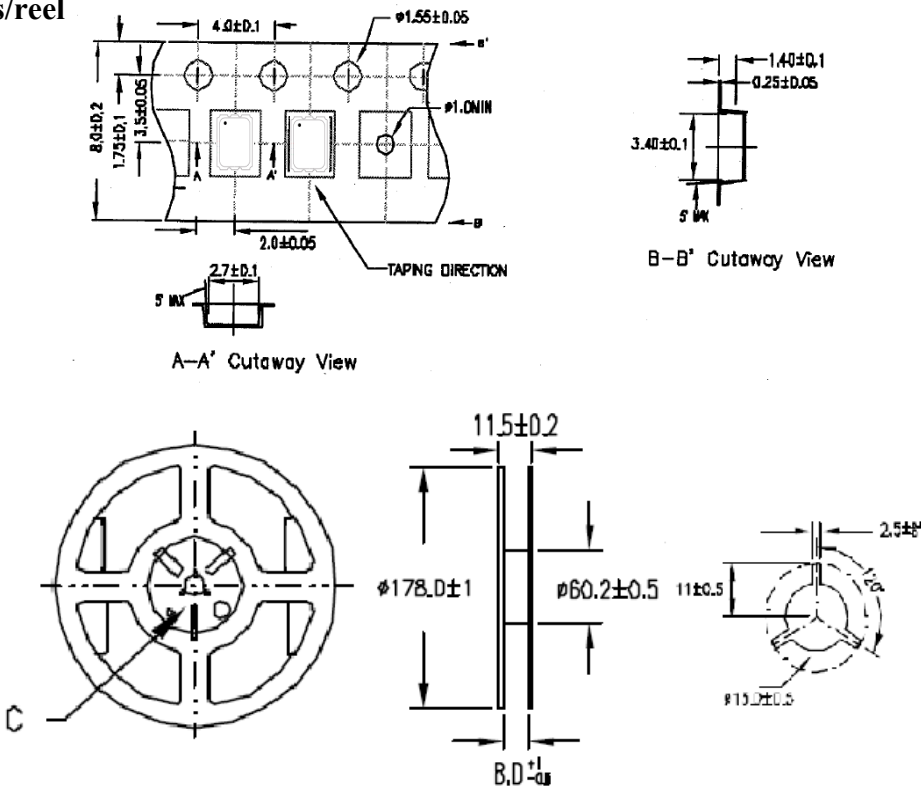
RoHS/RoHS II compliant

REFLOW PROFILE:



TAPE & REEL:

T: 1,000pcs/reel



Dimensions: mm

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