

● **FEATURES**

- ULTRA SMALL ULTRA THIN
- AUTOMATIC MOUNTING POSSIBLE
- REFLOW POSSIBLE
- EXCELLENT FOR HIGH DENSITY APPLICATIONS



● **SPECIFICATIONS**

| PARAMETER | VALUE |
|--------------------------------------|--|
| FREQUENCY RANGE | 26.000 MHz TO 60.000 MHz |
| MODE OF OSCILLATION | AT CUT, FUNDAMENTAL |
| FREQUENCY TOLERANCE AT 25°C | ±15 PPM, or ±30 PPM |
| FREQUENCY STABILITY OVER TEMPERATURE | ±15 PPM, or ±30 PPM |
| OPERATING TEMPERATURE RANGE | -10°C TO +60°C STANDARD -40°C TO +85°C EXTENDED |
| STORAGE TEMPERATURE RANGE | -40°C TO +85°C |
| AGING | ±2 PPM PER YEAR or ±5 PPM PER YEAR |
| LOAD CAPACITANCE | 8 pF to 10 pF |
| EQUIVALENT SERIES RESISTANCE | SEE TABLE 1 |
| SHUNT CAPACITANCE | 5.0 pF MAXIMUM |
| DRIVE LEVEL | 50 µW MAX |
| REFLOW CONDITIONS | 260°C ±5°C FOR 10s MAXIMUM |

TABLE 1

| FREQUENCY (MHz) | MODE | MAXIMUM ESR (OHMS) |
|------------------|------|--------------------|
| 26.000 TO 40.999 | FUND | 150 |
| 41.000 TO 60.999 | FUND | 100 |

■ **PART NUMBERING SYSTEM**

| TYPE | - | FREQUENCY | - | LOAD CAPACITANCE | - | MODE | - |
|-------|---|-----------|---|-------------------------|---|------|---|
| R1612 | - | IN MHz | - | 8 TO 10 pF FOR PARALLEL | - | F | - |

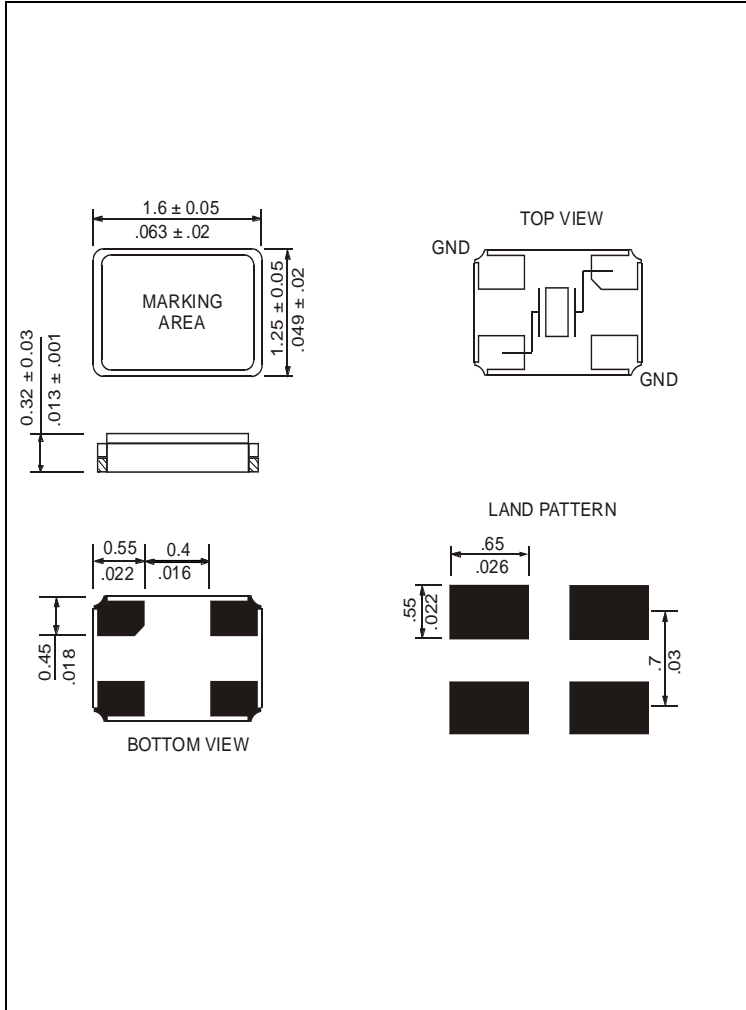
| TOLERANCE/STABILITY (PPM/PPM) | - | EXTENDED TEMPERATURE | - | TAPE & REEL |
|-------------------------------|---|--|---|-------------|
| PPMPPM Example: 1020, 2050 | - | Blank FOR STANDARD EXT FOR EXTENDED | - | TR |

EXAMPLE: R1612-24.000-8-F-1530-TR

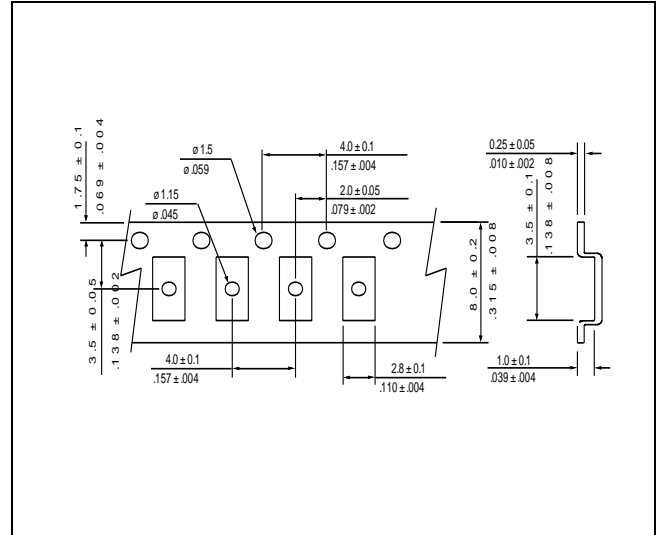
Surface Mount Crystal, 1.6 x 1.2 mm, 24.000 MHz, 8 pF load, Fundamental mode, ±15 ppm Tolerance, ±30 ppm Stability, from -10°C to +60°C, Tape and reel packaging

SERIES 1612

MECHANICAL SPECIFICATION



CARRIER TAPE DIMENSIONS



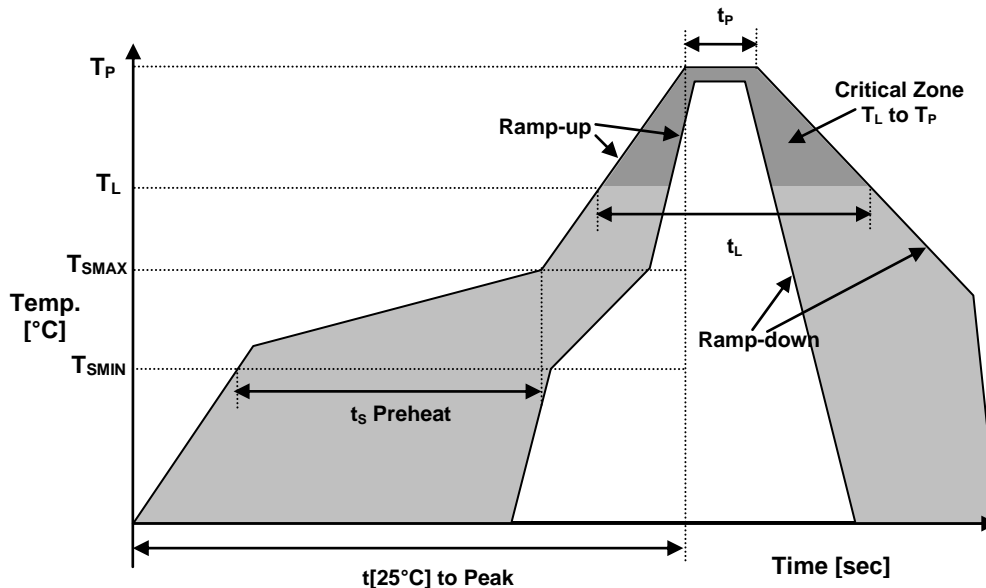
NOTE: REFER TO EIA-481 FOR NON-SPECIFIED DIMENSIONS

PACKAGING

180 mm REEL DIAMETER
8 mm TAPE WIDTH, 4 mm PITCH
QUANTITY: 3000 PIECES PER REEL

IN ACCORDANCE WITH EIA-481

● **REFLOW PROFILE**



| Reflow profile | | |
|--|-------------------------------|--------------|
| 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. |

● **ENVIRONMENTAL**

| PARAMETER | VALUE |
|----------------------------|---------------|
| MOISTURE SENSITIVITY LEVEL | 1 |
| RoHS | 6/6 LEAD FREE |
| REACH SVHC | COMPLIANT |
| HALOGEN-FREE | COMPLIANT |
| ESD CLASSIFICATION LEVEL | N/A |
| TERMINATION FINISH | Au |

