

**SERIES R2016**

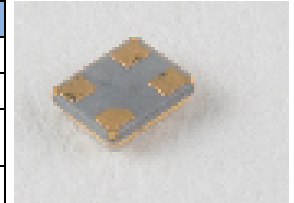


● **FEATURES**

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

● **SPECIFICATIONS**

PARAMETER	VALUE
FREQUENCY RANGE*	16.000 MHz to 72.000 MHz
MODE OF OSCILLATION	AT Cut, Fundamental
FREQUENCY TOLERANCE AT 25°C	±50 ppm max ±10 ppm, ±20 ppm, ±30 ppm available
FREQUENCY STABILITY OVER TEMPERATURE*	±50 ppm max ±10 ppm, ±20 ppm, ±30 ppm available
OPERATING TEMPERATURE RANGE*	0°C to +70°C Standard -40°C to +85°C Extended
STORAGE TEMPERATURE RANGE	-40°C to +90°C
AGING	±2 ppm 1st year max
LOAD CAPACITANCE	8 pF to 32 pF or Series Resonance
EQUIVALENT SERIES RESISTANCE	See Table 1
SHUNT CAPACITANCE	3.5 pF max
DRIVE LEVEL	100 µW max



\*Not any Combination Frequency-Operating Temperature Range- Stability is available. Please consult factory

FREQUENCY (MHz)	MODE	MAXIMUM ESR (Ω)
16.000 to 20.999	FUND	200
21.000 to 25.999	FUND	120
26.000 to 37.999	FUND	100
38.000 to 72.000	FUND	60

■ **PART NUMBERING SYSTEM**

TYPE	-	FREQUENCY	-	LOAD CAPACITANCE	-	MODE	TOLERANCE/STABILITY (ppm/ppm)
R2016	-	In MHz	-	8 to 32 pF for Parallel S for Series	-	Blank for < 24.576 MHz F for ≥ 24.576 MHz	Blank for Maximum ppm for Other Example: 1020, 2050

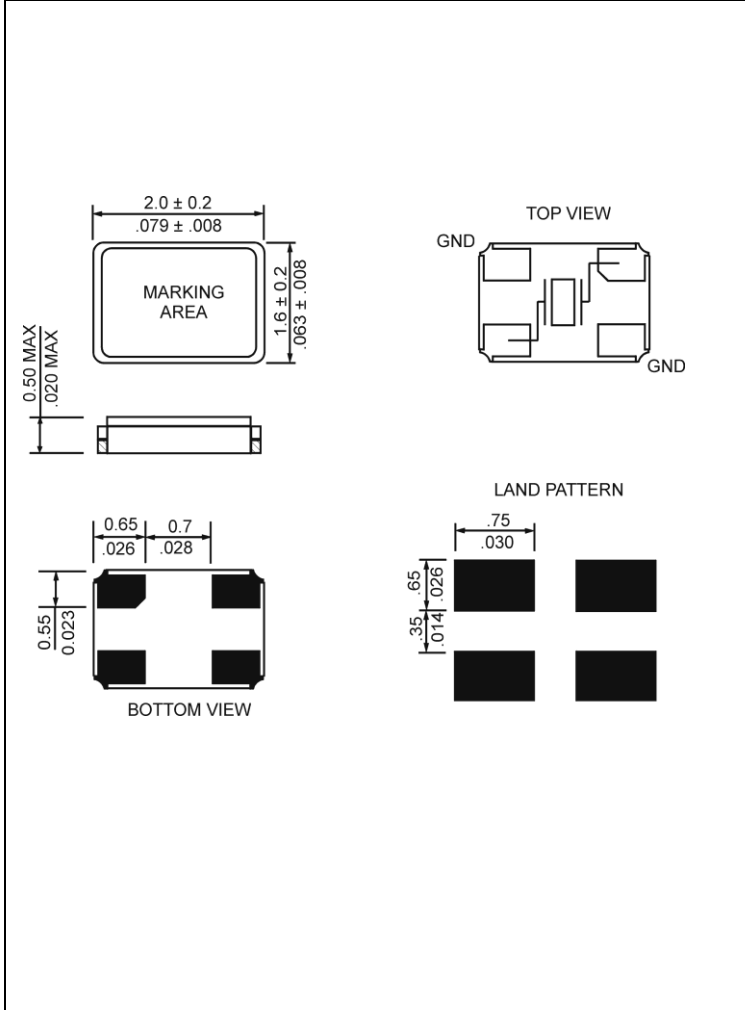
-	TEMPERATURE RANGE	-	TAPE & REEL
-	Blank for Standard X for Extended	-	TR

**EXAMPLE: R2016-32.000-8-F-1030-X-TR**

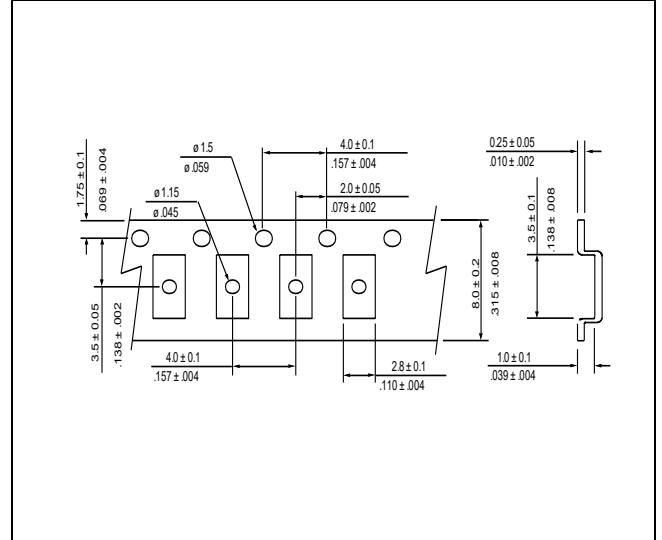
Surface Mount Crystal, 2.0 x 1.6 mm, 32.000 MHz, 8 pF Load, Fundamental Mode, ±10 ppm Tolerance, ±30 ppm Stability, from -40°C to +85°C, Tape and Reel Packaging

## SERIES R2016

### MECHANICAL SPECIFICATION



### CARRIER TAPE DIMENSIONS

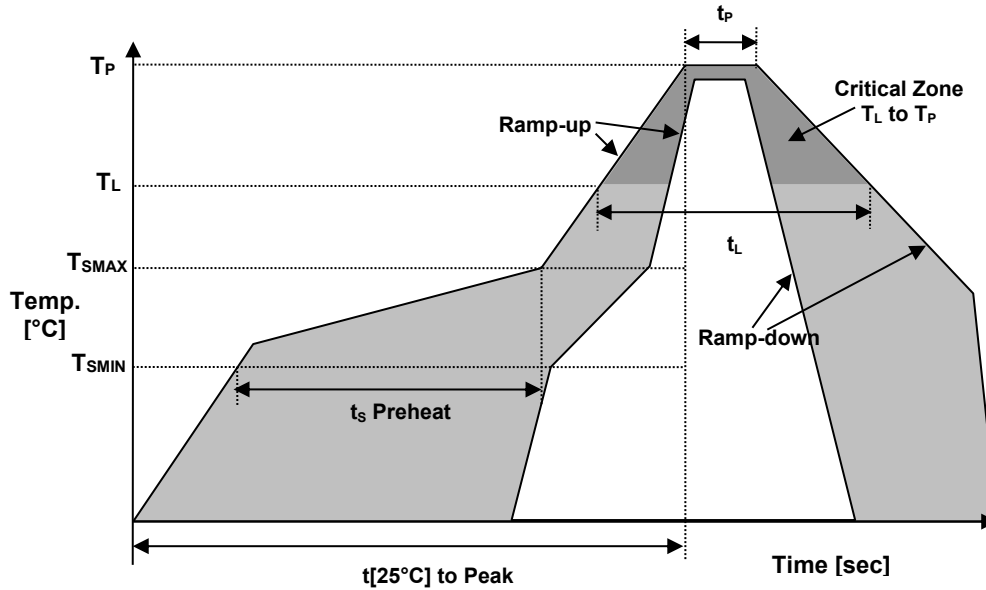


NOTE: REFER TO EIA-481 FOR NON-SPECIFIED DIMENSIONS

### PACKAGING

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

● 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 $t[25^\circ C]$ to Peak Temperature	$t[25^\circ C]$ to Peak	480 sec.
Time	$t_L$	60-150 sec.

● ENVIRONMENTAL

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

