

### SERIES RH100

#### ● FEATURES

- COMPACT DESIGN
- HIGH ACCURACY
- EXCELLENT FOR HIGH DENSITY SURFACE MOUNTING



#### ● SPECIFICATIONS

PARAMETER		VALUE
FREQUENCY RANGE		10.000 MHz TO 115.000 MHz
MODE OF OSCILLATION	FUNDAMENTAL	10.000 MHz TO 55.000 MHz
	THIRD OVERTONE	25.000 MHz TO 115.000 MHz
FREQUENCY TOLERANCE AT 25°C		±100 PPM MAXIMUM (±10 PPM, ±20 PPM AND ±50 PPM AVAILABLE)
FREQUENCY STABILITY OVER TEMPERATURE		±100 PPM MAXIMUM (±10 PPM, ±20 PPM AND ±50 PPM AVAILABLE)
OPERATING TEMPERATURE RANGE		-20°C TO +70°C STANDARD -40°C TO +85°C EXTENDED
STORAGE TEMPERATURE RANGE		-40°C TO +85°C
AGING		±3 PPM PER YEAR MAXIMUM
LOAD CAPACITANCE		9 pF to 32 pF OR SERIES
EQUIVALENT SERIES RESISTANCE		SEE TABLE 1
SHUNT CAPACITANCE		7.0 pF MAXIMUM
DRIVE LEVEL		500 µW MAX
SHOCK RESISTANCE		±5 PPM MAXIMUM 75 cm DROP TEST IN 3 AXES ON TO A HARD SURFACE
REFLOW CONDITIONS		260°C ±5°C FOR 10s MAXIMUM

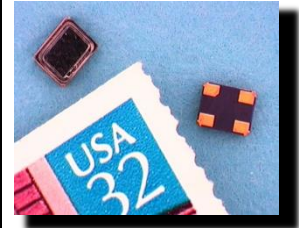


TABLE 1

FREQUENCY (MHz)	MODE	MAXIMUM ESR (OHMS)
10.000 TO 15.999	FUND	100
16.000 TO 19.999	FUND	80
20.000 TO 54.999	FUND/OT	60/40
55.000 TO 115.000	3OT	40

#### ■ PART NUMBERING SYSTEM

TYPE	-	FREQUENCY	-	LOAD CAPACITANCE	-	MODE	-
RH100	-	IN MHz	-	9 TO 32 pF FOR PARALLEL S FOR SERIES	-	Blank FOR < 24.576 MHz F FOR ≥ 24.576 MHz 3OT THIRD OVERTONE	-

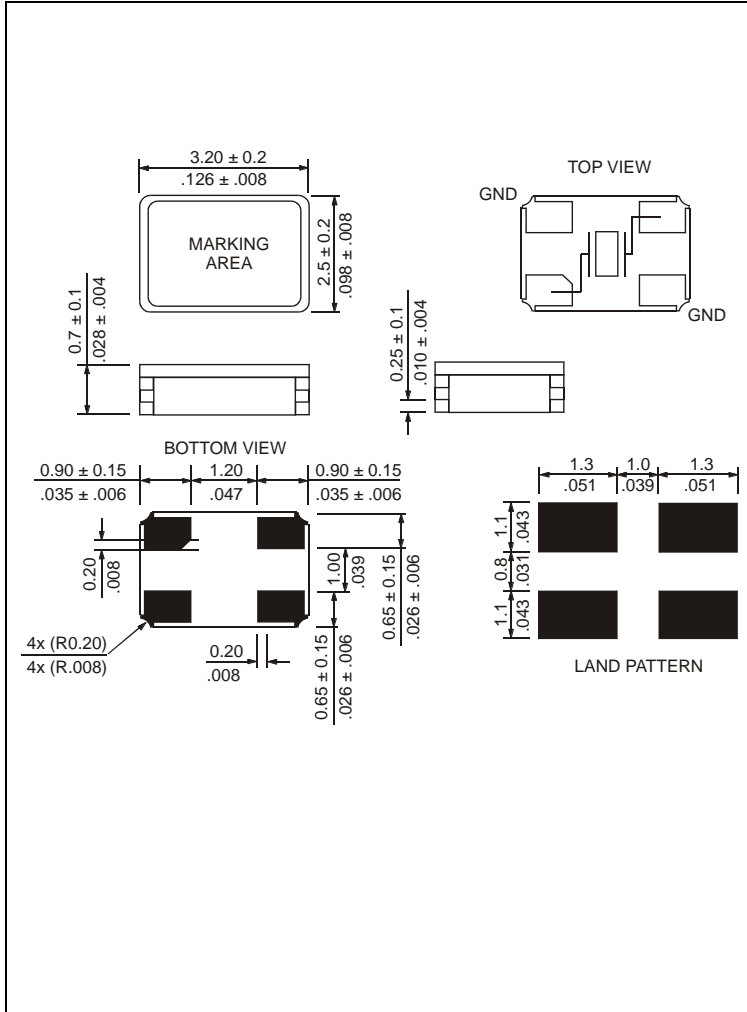
TOLERANCE/STABILITY (PPM/PPM)	-	EXTENDED TEMPERATURE	-	TAPE & REEL
Blank FOR MAXIMUM PPMPPM Example: 1020, 2050	-	Blank FOR STANDARD EXT FOR EXTENDED	-	TR

#### EXAMPLE: RH100-24.000-18-TR

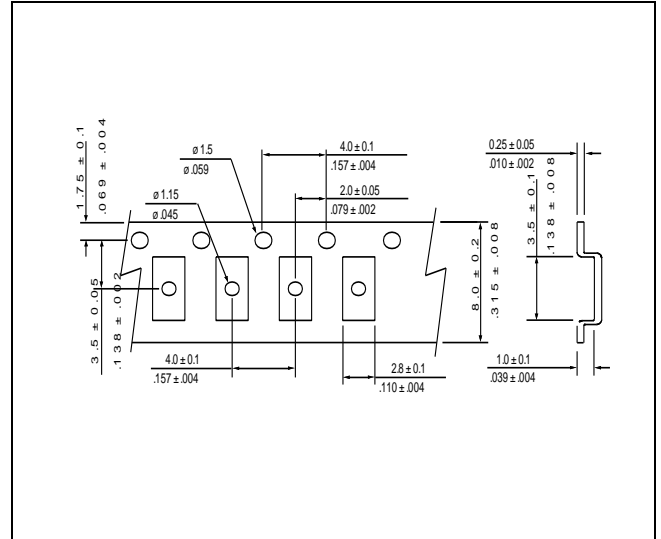
Surface Mount Microprocessor Crystal, 3.2 x 2.5 mm, 24.000 MHz, Fundamental mode, 18 pF load, ±100 ppm Tolerance, ±100 ppm Stability, from -10°C to +60°C, Tape and reel packaging

## SERIES RH100

### MECHANICAL SPECIFICATION



### CARRIER TAPE DIMENSIONS



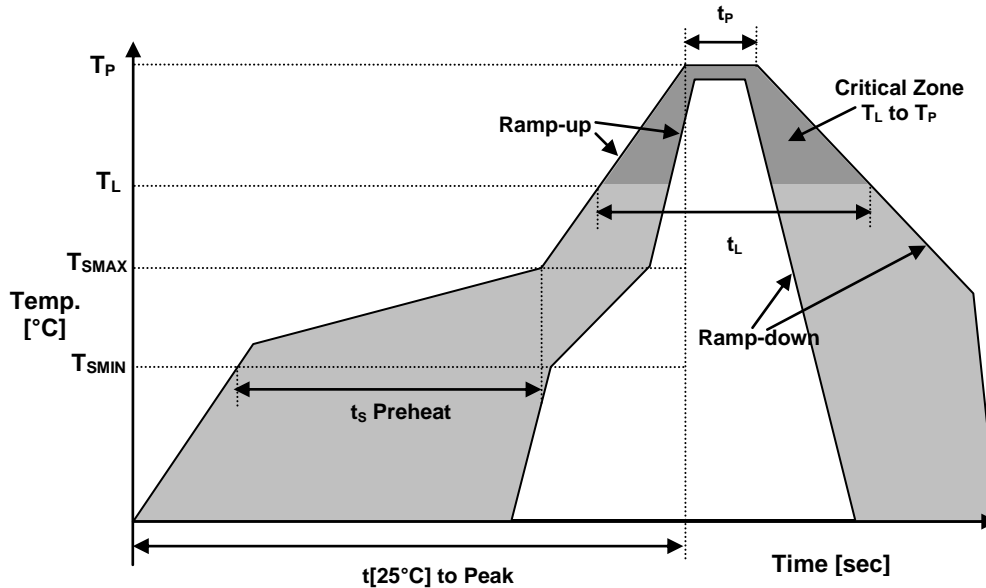
NOTE: REFER TO EIA-481 FOR NON-SPECIFIED DIMENSIONS

### 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 $t_{[25^\circ C]}$ 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 2	6/6 LEAD FREE
REACH SVHC	COMPLIANT
HALOGEN-FREE	COMPLIANT
ESD CLASSIFICATION LEVEL	N/A
TERMINATION FINISH	Au
UNIT WEIGHT (GRAMS)	0.01945

