

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

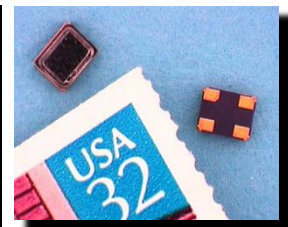


TABLE 1

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	-

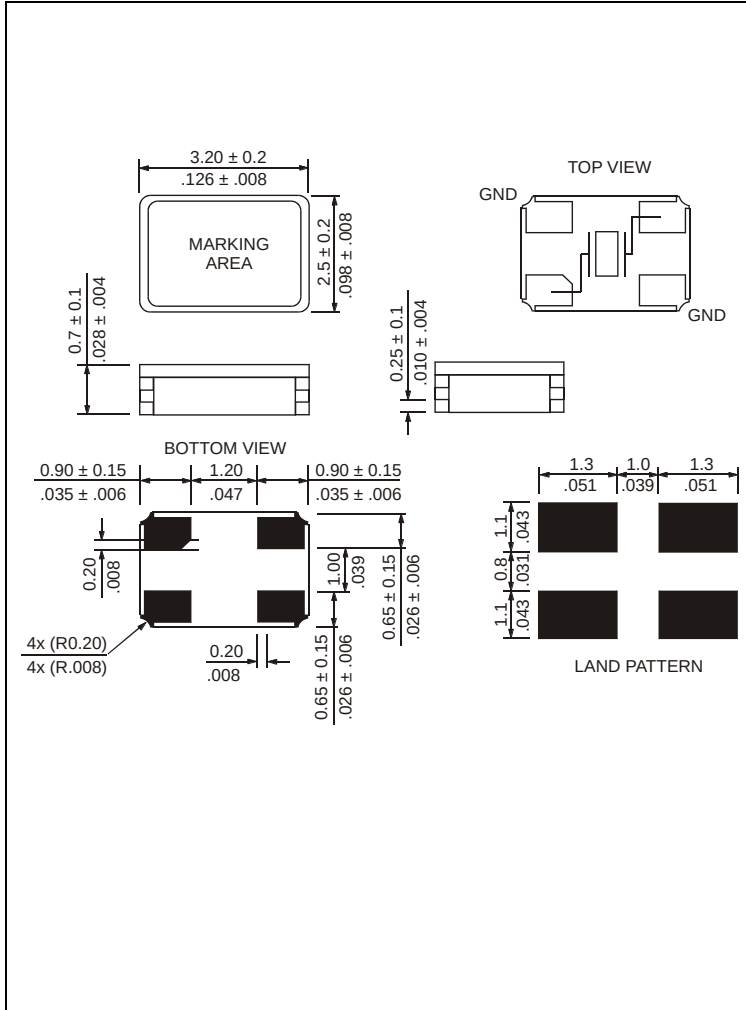
TOLERANCE/STABILITY (PPM/PPM)	-	EXTENDED TEMPERATURE	-	TAPE & REEL
Blank FOR MAXIMUM PPMPPM Example: 1020, 2050	-	Blank FOR STANDARD EXT FOR EXTENDED	-	TR

EXAMPLE: RH100-24.000-18-TR

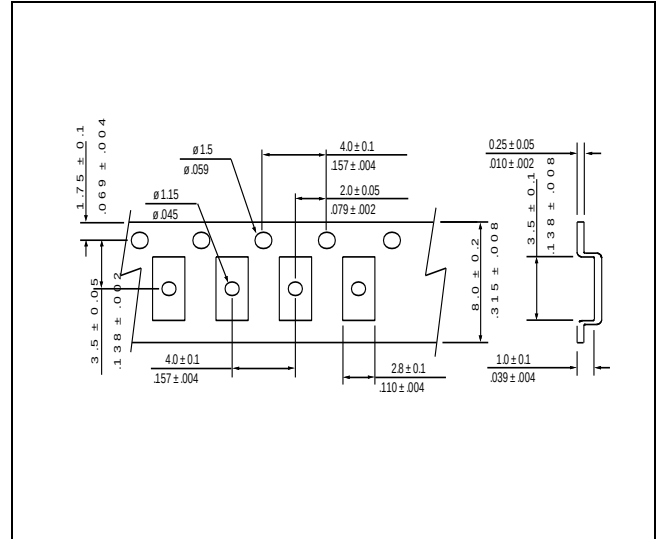
Surface Mount Microprocessor Crystal, 3.2 x 2.5 mm, 24.000 MHz, Fundamental mode, 18 pF load, ±100 ppm Tolerance, ±100 ppm Stability, from -10°C to +60°C, Tape and reel packaging

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MECHANICAL SPECIFICATION



CARRIER TAPE DIMENSIONS



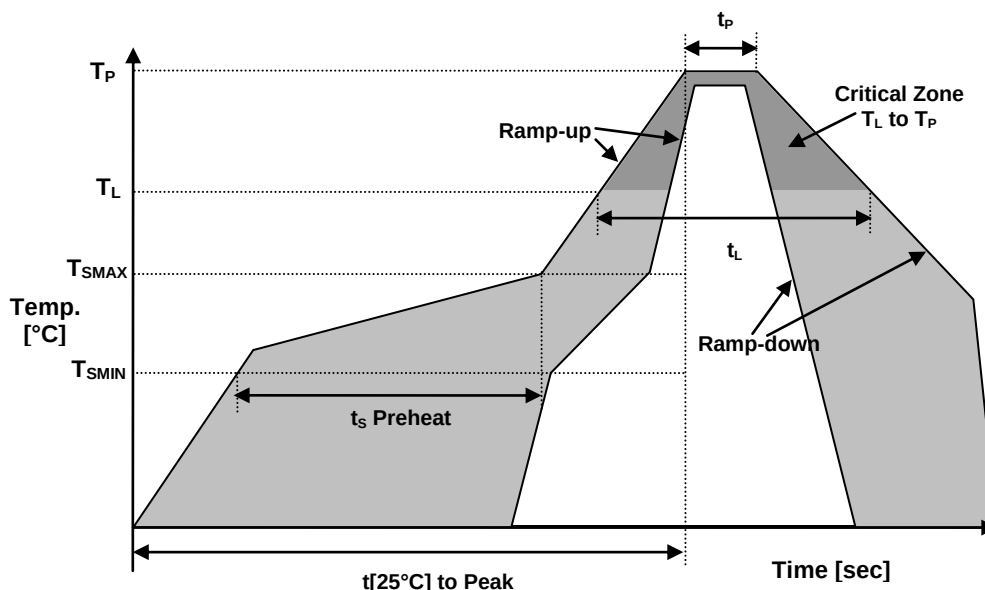
NOTE: REFER TO EIA-481 FOR NON-SPECIFIED DIMENSIONS

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	$t[25^\circ\text{C}] \text{ to Peak}$	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

