

SERIES RH100



FEATURES

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

SPECIFICATIONS

PARAMETER		VALUE
FREQUENCY RANGE		8.000 MHz to 156.250 MHz
MODE OF OSCILLATION	FUNDAMENTAL	8.000 MHz to 80.000 MHz
	THIRD OVERTONE	60.000 MHz to 156.250 MHz
FREQUENCY TOLERANCE AT 25°C		±100 ppm max (±10 ppm, ±20 ppm and ±50 ppm available)
FREQUENCY STABILITY OVER TEMPERATURE		±100 ppm max (±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		±2 ppm per year max
LOAD CAPACITANCE		7 pF to 32 pF or Series
EQUIVALENT SERIES RESISTANCE		See Table 1
SHUNT CAPACITANCE		3.5 pF max
DRIVE LEVEL		200 µW max
SHOCK RESISTANCE		±5 ppm max 75 cm drop test in 3 axes onto a hard wood surface
REFLOW CONDITIONS		260°C ±5°C for 10s max

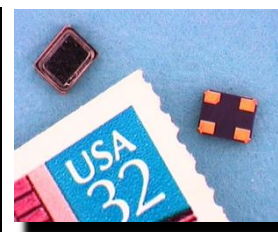


TABLE 1

FREQUENCY (MHz)	MODE	MAXIMUM ESR (Ω)
8.000 to 9.999	FUND	800
10.000 to 10.999	FUND	250
11.000 to 11.999	FUND	120
12.000 to 12.999	FUND	100
13.000 to 15.999	FUND	80
16.000 to 20.999	FUND	70
21.000 to 29.999	FUND	60
30.000 to 80.000	FUND	50
60.000 to 156.250	3OT	100

PART NUMBERING SYSTEM

TYPE	-	FREQUENCY	-	LOAD CAPACITANCE	-	MODE	-
RH100	-	IN MHz	-	7 TO 32 pF FOR PARALLEL S FOR SERIES	-	Blank FOR < 24.576 MHz F FOR ≥ 24.576 MHz 3OT THIRD OVERTONE	-

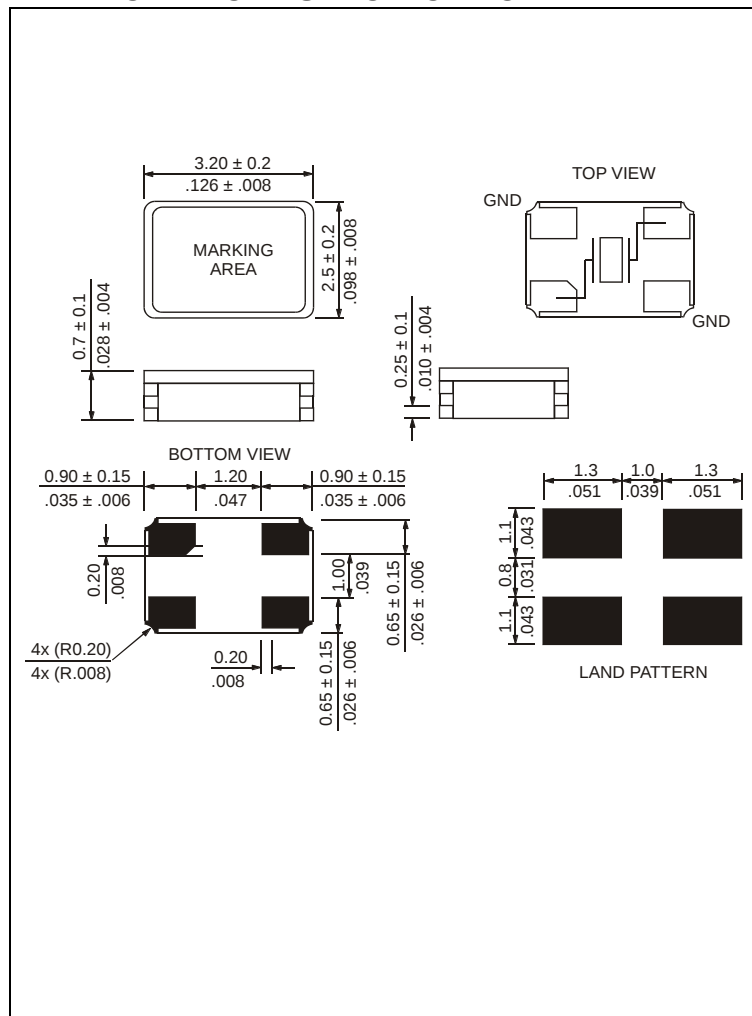
TOLERANCE/STABILITY (PPM/PPM)	-	OPERATING TEMPERATURE	-	TAPE & REEL
Blank FOR MAXIMUM PPMPM Example: 1020, 2050	-	Blank FOR STANDARD EXT FOR EXTENDED	-	TR

EXAMPLE: RH100-24.000-18-TR

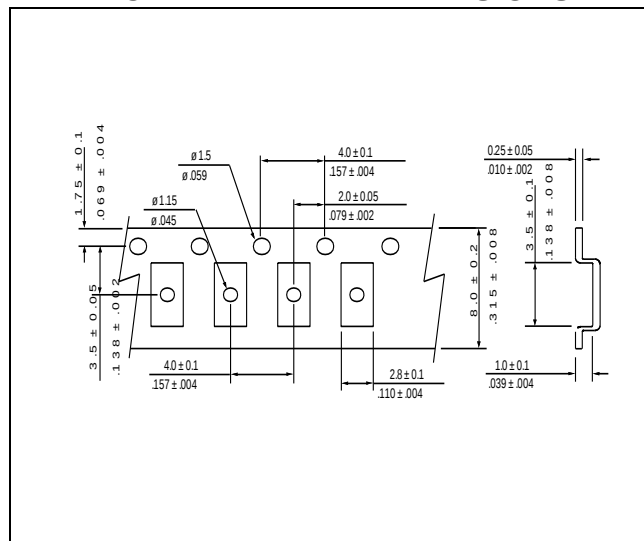
Surface Mount Microprocessor Crystal, 3.2 x 2.5 mm, 24.000 MHz, Fundamental mode, 18 pF load, ±100 ppm Tolerance, ±100 ppm Stability, from -20°C to +70°C, Tape and reel packaging

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MECHANICAL SPECIFICATION



CARRIER TAPE DIMENSIONS

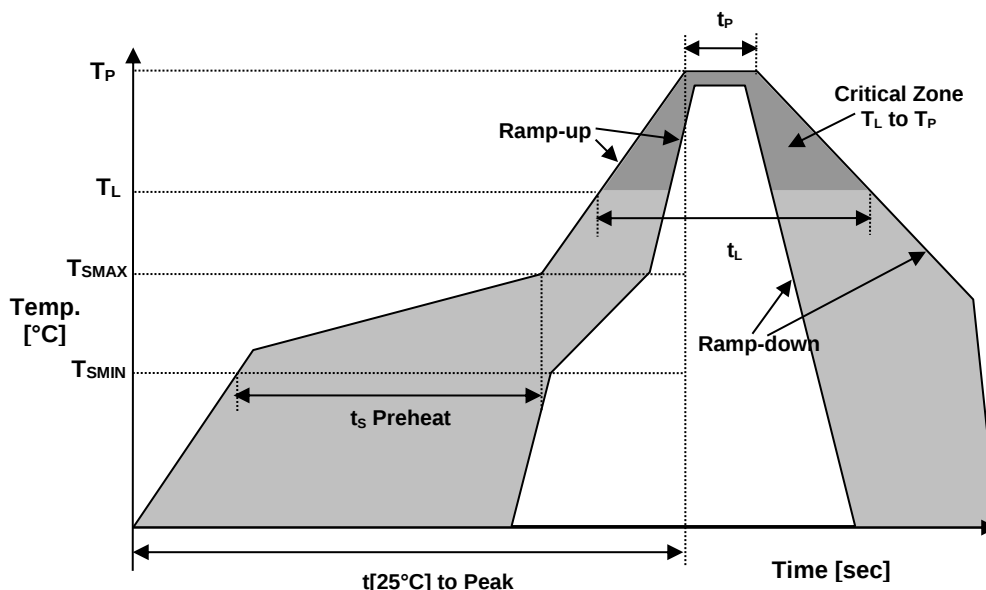


NOTE: REFER TO EIA-481 FOR NON-SPECIFIED DIMENSIONS

PACKAGING

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

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	COMPLIANT
REACH SVHC	COMPLIANT
HALOGEN-FREE	COMPLIANT
ESD CLASSIFICATION LEVEL	N/A
TERMINATION FINISH	Au
UNIT WEIGHT (GRAMS)	0.01945

