

SERIES H10S



FEATURES

- LOW PROFILE
- HIGH ACCURACY AND STABILITY
- WIDE FREQUENCY RANGE FROM 8.00 MHz to 200.00 MHz

SPECIFICATIONS

PARAMETER	VALUE	
FREQUENCY RANGE*	8.000 MHz to 200.000 MHz	
MODE OF OSCILLATION	FUNDAMENTAL	8.000 MHz to 54.000 MHz
	3rd OVERTONE	40.000 MHz to 200.000 MHz
FREQUENCY TOLERANCE AT 25°C	±100 ppm max ±10ppm, ±20ppm, ±50 ppm available	
FREQUENCY STABILITY OVER TEMPERATURE*	±100 ppm max ±10ppm, ±20ppm, ±50 ppm available	
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 1st year max	
LOAD CAPACITANCE	10 pF to 32 pF or Series Resonance	
EQUIVALENT SERIES RESISTANCE	See Table 1	
SHUNT CAPACITANCE	5.0 pF max	
DRIVE LEVEL	300 µW max	

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

TABLE 1

FREQUENCY (MHz)	MODE	MAXIMUM ESR (Ω)
7.000 to 11.900	FUND	100
12.000 to 13.900	FUND	60
14.000 to 54.000	FUND	40
40.000 to 200.000	3rd	80

PART NUMBERING SYSTEM

TYPE	-	FREQUENCY	-	LOAD CAPACITANCE	-	MODE	-
H10S	-	IN MHz	-	10 to 32 pF for PARALLEL S for SERIES	-	Blank for < 24.576 MHz F for ≥ 24.576 MHz 3OT THIRD OVERTONE	-

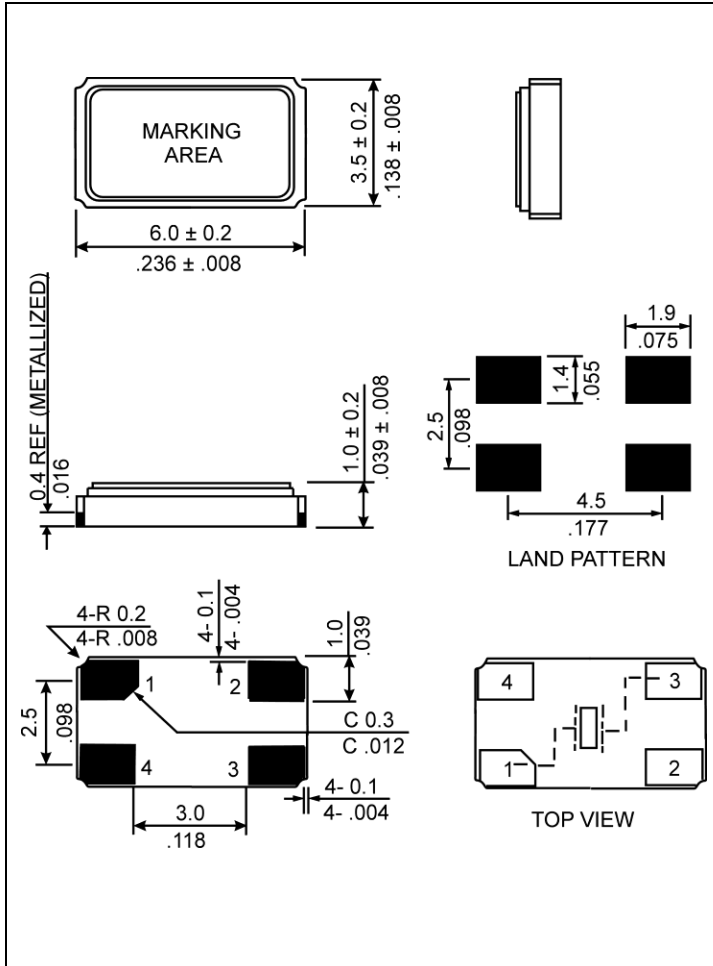
TOLERANCE/STABILITY (PPM/PPM)	-	OPERATING TEMPERATURE	-	TAPE & REEL
Blank for MAXIMUM PPMPPM for OTHER Example: 1020, 2050	-	Blank for STANDARD EXT for EXTENDED	-	TR

EXAMPLE: H10S-45.000-32-F-3050-TR

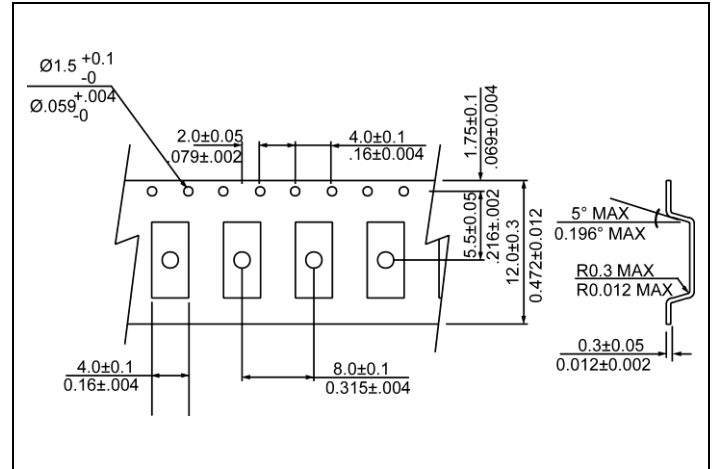
Surface Mount Crystal, 6.0 x 3.5 mm, 45.000 MHz, 32 pF Load, Fundamental Mode, ±30 ppm Tolerance, ±50ppm Stability, from -10°C to +60°C, Tape and Reel Packaging

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MECHANICAL SPECIFICATION



CARRIER TAPE DIMENSIONS



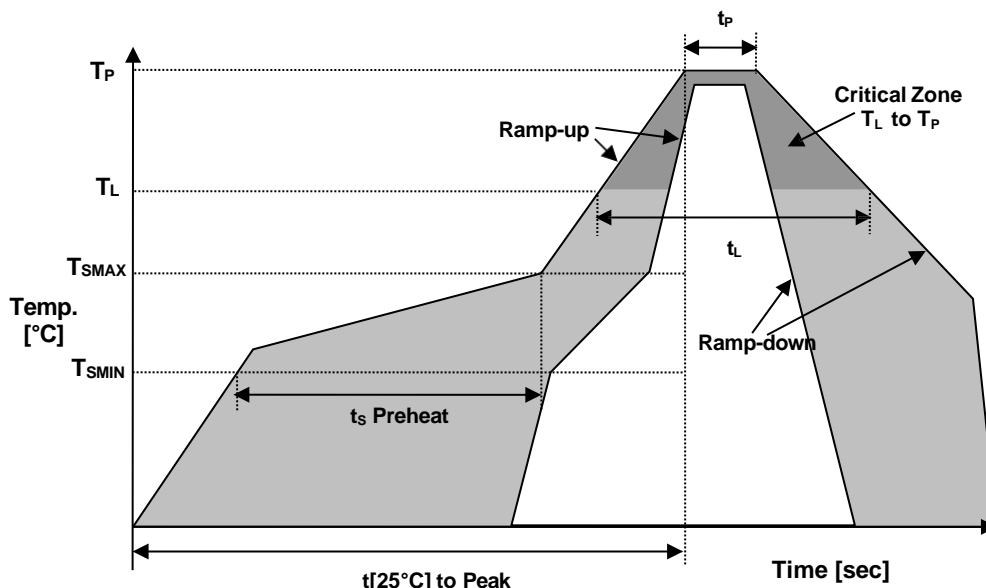
NOTE: REFER TO EIA-481 FOR NON-SPECIFIED DIMENSIONS

PACKAGING

255 mm REEL DIAMETER
12 mm TAPE WIDTH, 8 mm PITCH
QUANTITY: 1000 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	COMPLIANT
REACH SVHC	COMPLIANT
HALOGEN-FREE	COMPLIANT
ESD CLASSIFICATION LEVEL	N/A
TERMINATION FINISH	Au



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