

SURFACE MOUNT MICROPROCESSOR CRYSTAL

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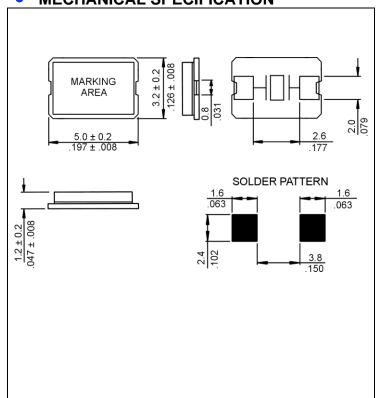
H130A-24.000-18-2030-EXT-TR

SPECIFICATIONS

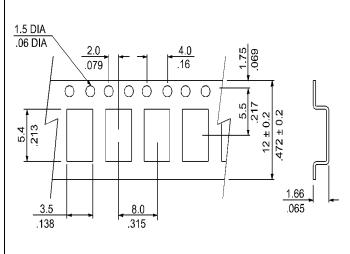
PARAMETER	VALUE		
NOMINAL FREQUENCY	24.000 MHz		
MODE OF OSCILLATION	Fundamental		
FREQUENCY TOLERANCE AT 25°C	±20 ppm max		
FREQUENCY STABILITY OVER TEMPERATURE	±30 ppm max		
OPERATING TEMPERATURE RANGE	-40°C to 85°C		
STORAGE TEMPERATURE RANGE	-55°C to +125°C		
AGING	±3 ppm per year max		
LOAD CAPACITANCE	18 pF		
EQUIVALENT SERIES RESISTANCE	$30~\Omega$ max		
SHUNT CAPACITANCE 5 pF max			
DRIVE LEVEL	100 μW typ., 300 μW max		
INSULATION RESISTANCE	500 MΩ min @ DC 100V		



MECHANICAL SPECIFICATION



CARRIER TAPE DIMENSIONS



NOTE: REFER TO EIA-481 FOR DIMENSIONS

PACKAGING

178 mm REEL DIAMETER 12 mm TAPE WIDTH, 8 mm PITCH QUANTITY: 1000 PIECES PER REEL

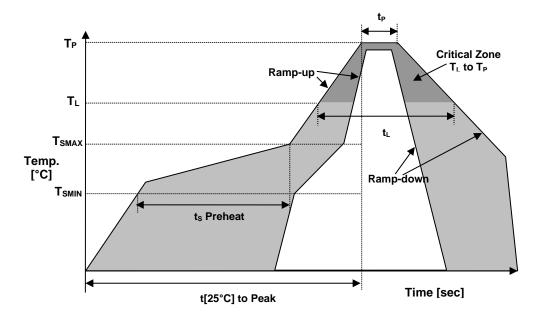
IN ACCORDANCE WITH EIA-481

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REFLOW PROFILE



Reflow profile				
Temperature Min Preheat	T _{SMIN}	125°C		
Temperature Max Preheat	T _{SMAX}	150°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°C] to Peak Temperature	t[25°C] to Peak	480 sec.		
Time	tL	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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MARKING

R24.000 xBDyw

x - 1 or 2 digits as Internal Production ID code

y – Year code

w – Week code

YEAR CODE		
Year	Code	
2018	8	
2019	9	
2020	0	
2021	1	
2022	2	
2023	3	
2024	4	
2025	5	
2026	6	
2027	7	
2028	8	
2029	9	

ALPHA WEEK CODE TABLE					
Week	Code	Week	Code	Week	Code
1	a	19	s	37	K
2	b	20	t	38	L
3	c	21	u	39	M
4	d	22	v	40	N
5	e	23	w	41	О
6	f	24	X	42	P
7	g	25	у	43	Q
8	h	26	Z	44	R
9	i	27	A	45	S
10	j	28	В	46	T
11	k	29	C	47	U
12	1	30	D	48	V
13	m	31	E	49	W
14	n	32	F	50	X
15	О	33	G	51	Y
16	p	34	Н	52	Z
17	q	35	I		
18	r	36	J		

APPROVAL

RALTRON		
DRAWN BY:	KJackson, January 20, 2016	
APPROVED BY:	KJackson, January 20, 2016	
REVISION:	A, Initial Release Updated to current spec levels KJ 9/27/16	
	B, Updated to current spec levels AG 10/13/22	

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