

#### AS-13.000-18-SMD-TR

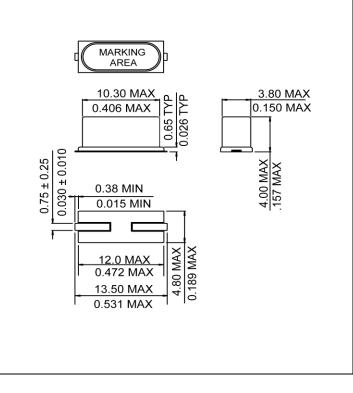
# SPECIFICATIONS

PARAMETER	VALUE
NOMINAL FREQUENCY	13.000 MHz
MODE OF OSCILLATION	Fundamental
FREQUENCY TOLERANCE AT 25°C	±30 ppm max
FREQUENCY STABILITY OVER TEMPERATURE	±50 ppm max
OPERATING TEMPERATURE RANGE	-20°C to +70°C
STORAGE TEMPERATURE RANGE	-55°C to +125°C
AGING	±5 ppm per year max
LOAD CAPACITANCE	18 pF
EQUIVALENT SERIES RESISTANCE	50 Ω max
SHUNT CAPACITANCE	7 pF max
DRIVE LEVEL	1000 µW max
REFLOW CONDITIONS	260°C for 10 sec max
INSULATION RESISTANCE	500 MΩ min @ DC 100V

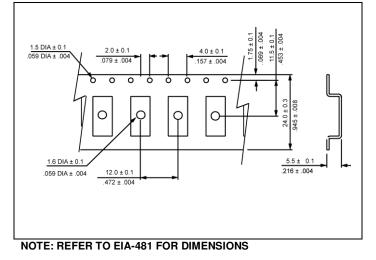


Photo is not actual part

# MECHANICAL SPECIFICATION



# • CARRIER TAPE DIMENSIONS



#### PACKAGING

178 mm REEL DIAMETER 24 mm TAPE WIDTH, 12 mm PITCH QUANTITY: 1000 PIECES PER REEL

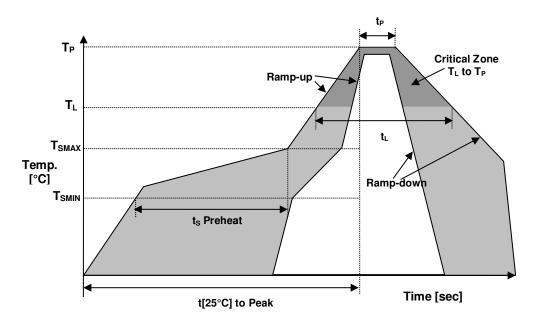
IN ACCORDANCE WITH EIA-481



#### LOW PROFILE MICROPROCESSOR CRYSTAL Page 2 of 3

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# • REFLOW PROFILE



Reflow profile				
Temperature Min Preheat	T <sub>SMIN</sub>	150°C		
Temperature Max Preheat	T <sub>SMAX</sub>	200°C		
Time (T <sub>SMIN</sub> to T <sub>SMAX</sub> )	ts	60-180 sec.		
Temperature	TL	217°C		
Peak Temperature	TP	260°C		
Ramp-up rate	R <sub>UP</sub>	3°C/sec max.		
Ramp-down rate	R <sub>DOWN</sub>	6°C/sec max.		
Time within 5°C of Peak Temperature	t <sub>P</sub>	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	Sn





## AS-13.000-18-SMD-TR

#### MARKING

R130xxByw

- x Internal Production ID code
- y Year code
- w-Week code

YEAR CODE		
Year	Code	
2015	5	
2016	6	
2017	7	
2018	8	
2019	9	
2020	0	
2021	1	
2022	2	
2023	3	
2024	4	
2025	5	

	ALPHA WEEK CODE TABLE				
Week	Code	Week	Code	Week	Code
1	а	19	8	37	K
2	b	20	t	38	L
3	с	21	u	39	М
4	d	22	v	40	Ν
5	e	23	w	41	0
6	f	24	х	42	Р
7	g	25	У	43	Q
8	h	26	z	44	R
9	i	27	А	45	S
10	j	28	В	46	Т
11	k	29	С	47	U
12	1	30	D	48	V
13	m	31	E	49	W
14	n	32	F	50	Х
15	0	33	G	51	Y
16	р	34	Н	52	Z
17	q	35	Ι		
18	r	36	J		

# APPROVAL

DRAWN BY:	KJackson, March 31, 2014
APPROVED BY:	KJackson, March 31, 2014
REVISION:	A, Initial Release
	Updated to current specs KJ 10/17/16 B, Updated to current spec levels by
	XL, June 19, 2019

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