

# LOW PROFILE MICROPROCESSOR CRYSTAL

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AS-19.6608-20-SMD-TR

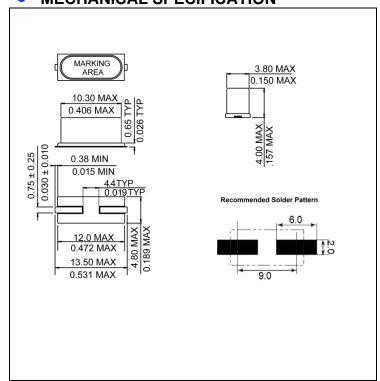
#### SPECIFICATIONS

PARAMETER	VALUE
NOMINAL FREQUENCY	19.6608 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 first year max
LOAD CAPACITANCE	20 pF
EQUIVALENT SERIES RESISTANCE	40 Ω max
SHUNT CAPACITANCE	5 pF max
DRIVE LEVEL	500 μW max
INSULATION RESISTANCE	500 MΩ min @ DC 100V

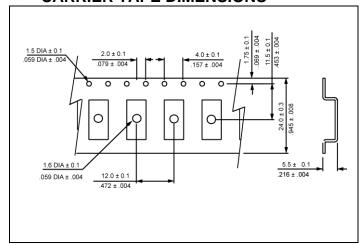


Photo is not actual part

# MECHANICAL SPECIFICATION



### CARRIER TAPE DIMENSIONS



NOTE: REFER TO EIA-481 FOR DIMENSIONS

### PACKAGING

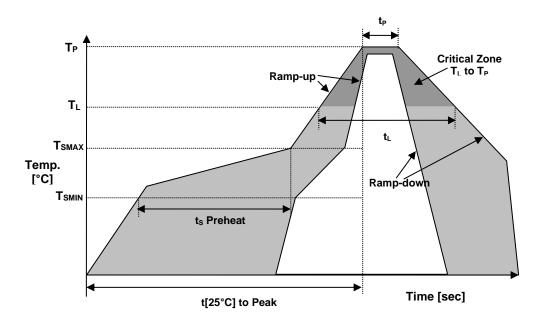
178 mm REEL DIAMETER 24 mm TAPE WIDTH, 12 mm PITCH QUANTITY: 1000 PIECES PER REEL

IN ACCORDANCE WITH EIA-481



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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> )	t <sub>S</sub>	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 <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	t∟	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





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#### MARKING

R196xAyw

x − 1 or 2 Digits as Internal Production ID code

y - Year code

w - Week code

YEAR CODE		
Year	Code	
2011	1	
2012	2	
2013	3	
2014	4	
2015	5	
2016	6	
2017	7	
2018	8	
2019	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

DRAWN BY:	XLiu, January 31, 2019
APPROVED BY:	XLiu, January 31, 2019
REVISION:	A, Initial Release
	B, Updated to current spec levels by
	XLiu, September 28, 2022

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