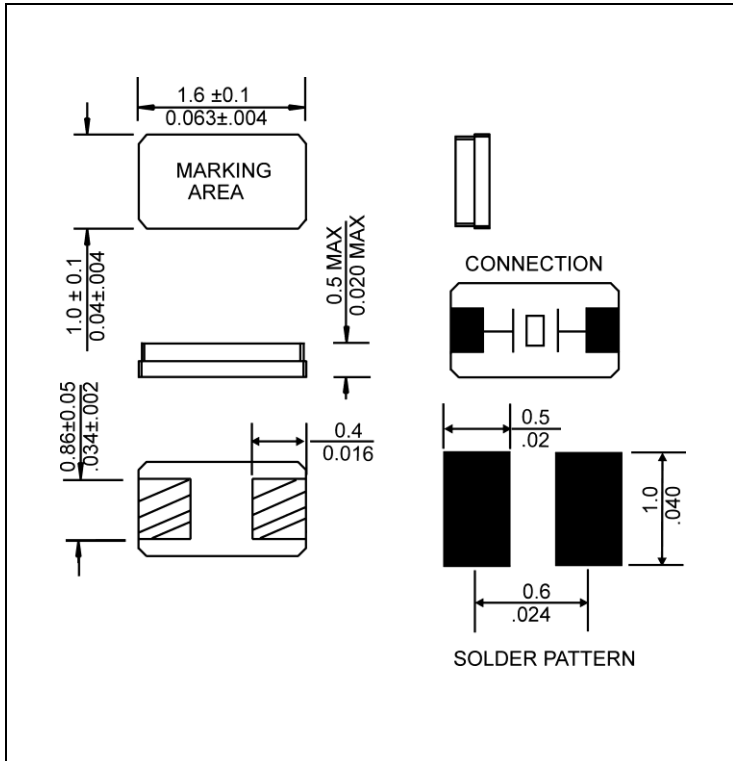


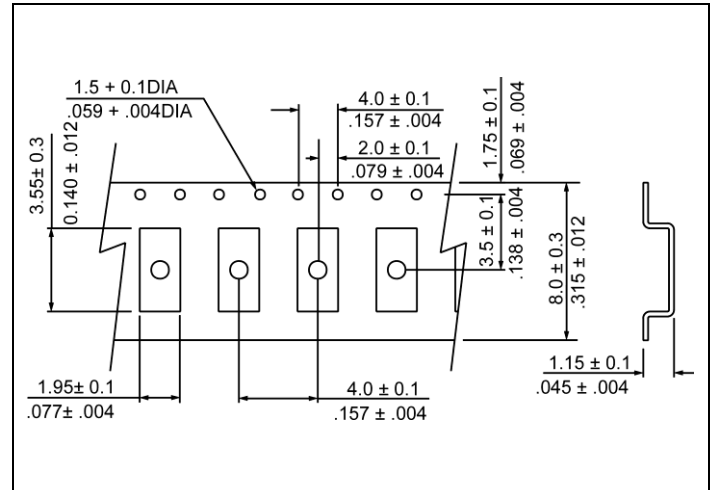
● SPECIFICATIONS

PARAMETER	VALUE
NOMINAL FREQUENCY	32.768 kHz
MODE OF OSCILLATION	Fundamental
FREQUENCY TOLERANCE AT 25°C	±20 ppm max
TEMPERATURE COEFFICIENT	-0.045 x 10 ⁻⁶ / °C ² max
TURNOVER TEMPERATURE	+25°C ±5°C
OPERATING TEMPERATURE RANGE	-40°C to +85°C
STORAGE TEMPERATURE RANGE	-55°C to +125°C
AGING	±3 ppm first year max
LOAD CAPACITANCE	12.5 pF
EQUIVALENT SERIES RESISTANCE	90 kΩ max
SHUNT CAPACITANCE	2 pF max
DRIVE LEVEL	0.1 μW max
INSULATION RESISTANCE	500 MΩ min @ DC 100V

● MECHANICAL SPECIFICATION



● CARRIER TAPE DIMENSIONS



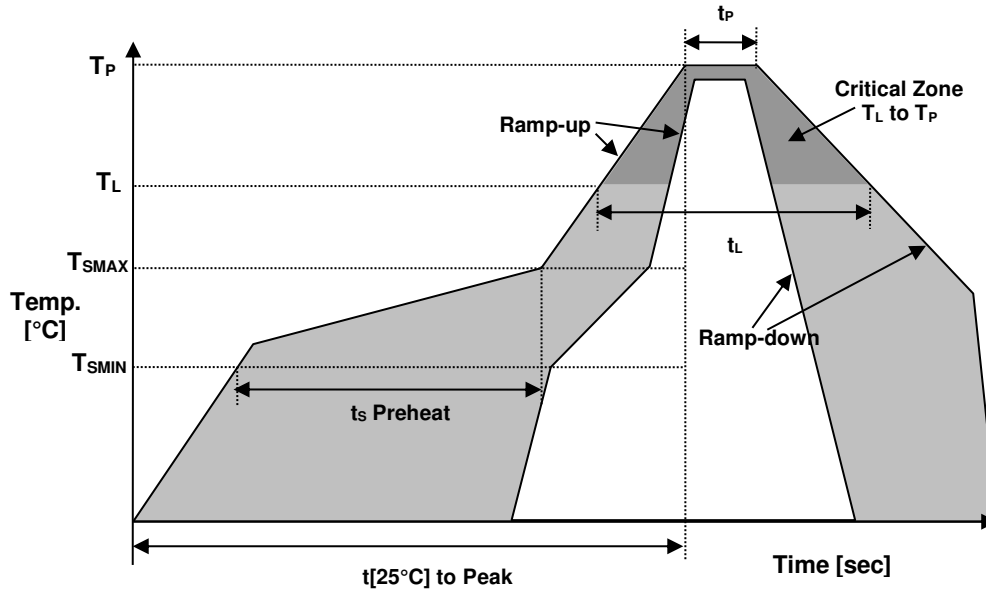
NOTE: REFER TO EIA-481 FOR DIMENSIONS

● PACKAGING

178 mm REEL DIAMETER
8 mm TAPE WIDTH, 4 mm PITCH
QUANTITY: 3000 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°C] to Peak Temperature	t[25°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



● MARKING

Fyww

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

YEAR CODE	
Year	Code
2019	9
2020	0
2021	1
2022	2
2023	3
2024	4
2025	5
2026	6
2027	7
2029	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	O
6	f	24	x	42	P
7	g	25	y	43	Q
8	h	26	z	44	R
9	i	27	A	45	S
10	j	28	B	46	T
11	k	29	C	47	U
12	l	30	D	48	V
13	m	31	E	49	W
14	n	32	F	50	X
15	o	33	G	51	Y
16	p	34	H	52	Z
17	q	35	I		
18	r	36	J		

● APPROVAL

Drawn By:	FP, 09 April 2014
Approved By:	FP, 09 April 2014
Revision:	A, Initial Release B, Updated to current spec levels KJ 9/25/17 Updated to current spec levels by JH 10/14/2019 Corrected the ESR Value CP 12/03/2019 C, Updated to current spec levels by XL 6/17/2020 D, Updated to current spec levels by XS 3/4/2021

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