

● SPECIFICATIONS

PARAMETER	VALUE
NOMINAL FREQUENCY	32.768 kHz
MODE OF OSCILLATION	Fundamental
FREQUENCY TOLERANCE AT 25°C	±20 ppm max
TURNOVER TEMPERATURE	+25 ± 5°C
TEMPERATURE COEFFICIENT	-0.04 ppm / °C <sup>2</sup> max
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	70 kΩ max
SHUNT CAPACITANCE	1.1 pF typ
DRIVE LEVEL	0.5 μW max
SHOCK RESISTANCE	±5ppm max 75 cm drop test onto a hard wood surface
INSULATION RESISTANCE	500 MΩ min @ DC 100V

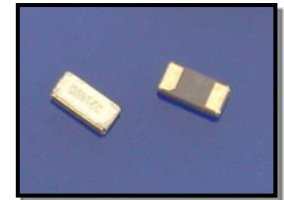
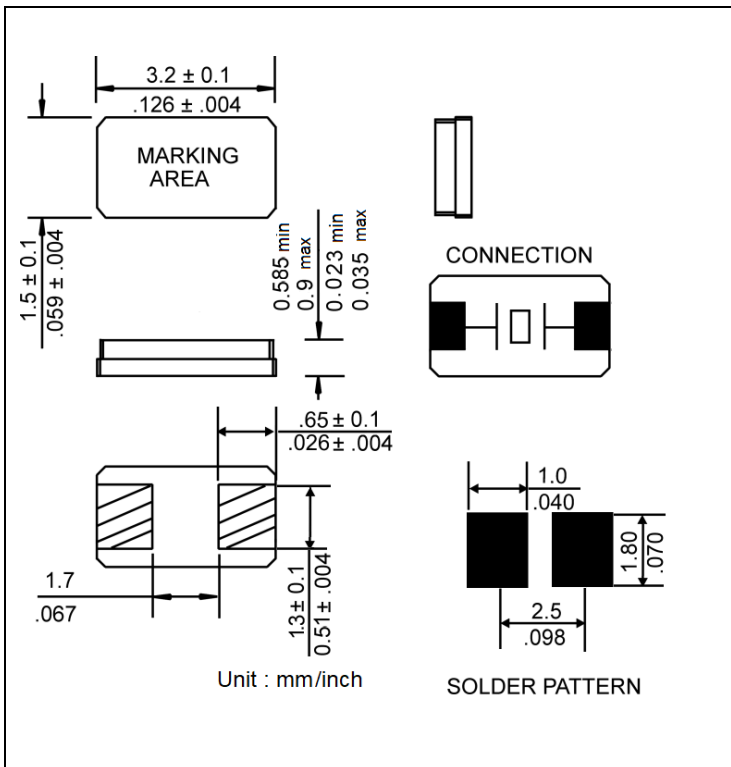
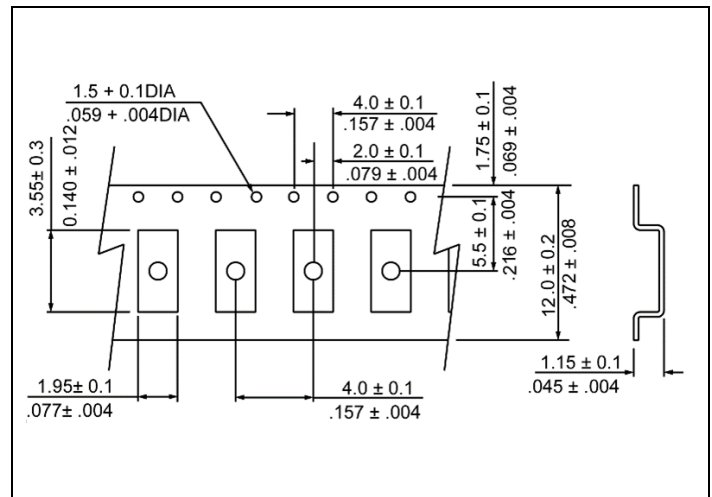


Photo not actual part

● MECHANICAL SPECIFICATION



● CARRIER TAPE DIMENSIONS



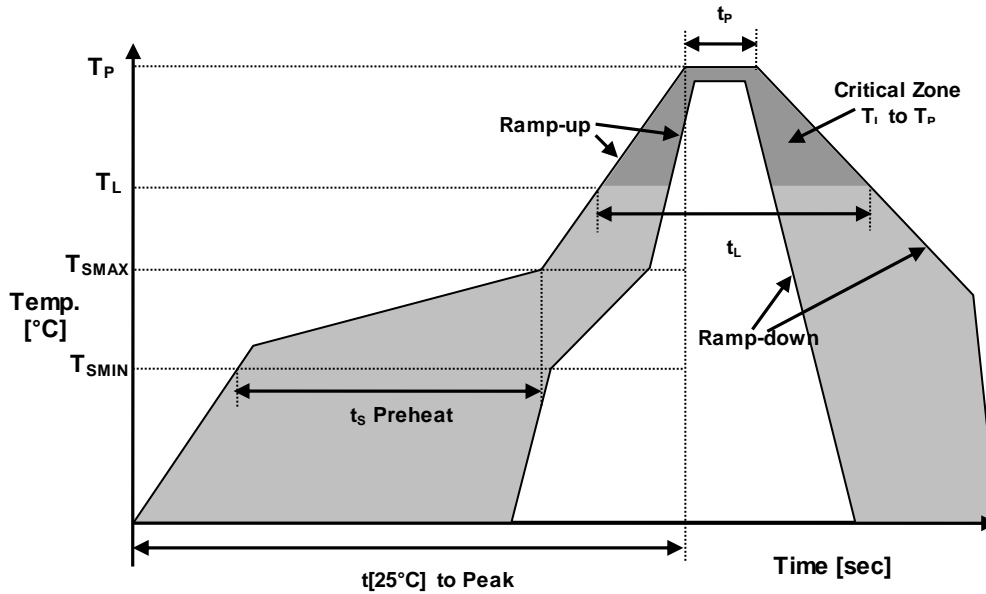
NOTE: REFER TO EIA-481 FOR DIMENSIONS

● PACKAGING

330 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 $t[25^\circ\text{C}]$ to Peak Temperature	$t[25^\circ\text{C}]$ 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

Xywwx

X – Internal Production ID code (J, R, T, Y, M, R, N)  
 y – Year code  
 ww – Week code  
 x – 1 or 2 digits as Lot code



ymxxx

y – Year code
m – Month code, Jan ~ Sep: 1 ~ 9, Oct: X Nov: Y Dec: Z
xxx – Lot code

XLzymbd

X – Internal Production ID code (J, R, T, Y, M, R, N)
L – Load capacitance code (A: 12.5pF B: 9pF C: 7pF Z: others )
z – Lot code
y – Year code
m – Month code, Jan ~ Sep: 1 ~ 9, Oct: X Nov: Y Dec: Z
d – Day cod

XzymFxx

X – Internal Production ID code (J, R, T, Y, M, R, N)
z – Frequency code
y – Year code
m – Month code, Jan ~ Sep: 1 ~ 9, Oct: X Nov: Y Dec: Z
xx – Lot code

APPROVAL

Table with 2 columns: Field (Drawn By, Approved By, Revision) and Value (A, Initial Release; FP, 20 November 2013; A, Initial Release; CP, May 04, 2017; Updated to current spec level; F, CP March 27, 2018; Added PN System; G, CP, March 27, 2018; Updated the Marking System; H, KJ June 25, 2018; Updated Marking System; I, CP August 29, 2018; Updating Marking System; J, YG Jiao, July 2, 2019; Remove Marking system; K, Updated to current spec levels by XLiu, April 30, 2020; L, Updated to current spec levels by XLiu, June 4, 2020; M, CP, June 24, 2020; Updated C0, C1 and ESR; N, CP, June 29, 2020; Completed the Revision Level Changes; P, CP, September 6, 2021; Updated to the current spec levels; R, CP, September 13, 2021 Added Shock Resistance)

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