

## ● SPECIFICATIONS

PARAMETER	VALUE
NOMINAL FREQUENCY	32.768 kHz
MODE OF OSCILLATION	Fundamental
FREQUENCY TOLERANCE AT 25°C	±10 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
REFLOW CONDITIONS	260°C for 10 sec max
INSULATION RESISTANCE	500 MΩ min @ DC 100V

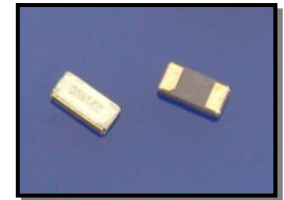
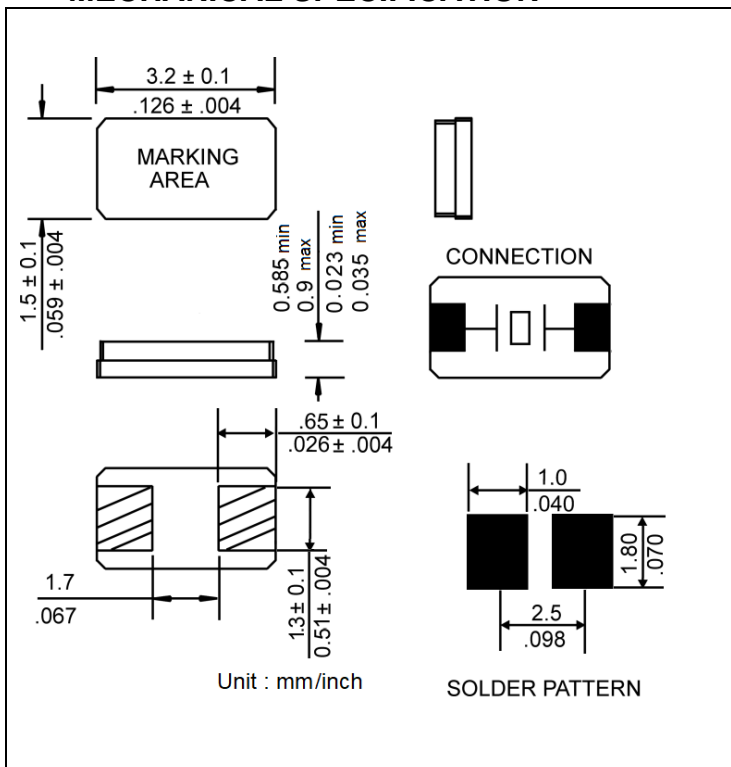
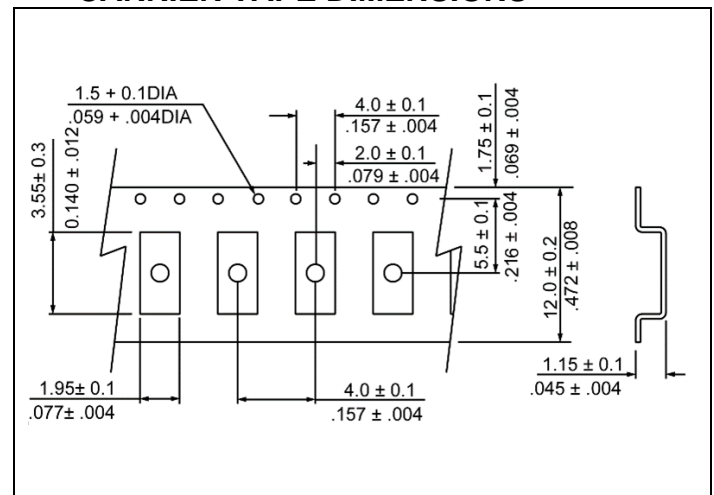


Photo not actual part

## ● MECHANICAL SPECIFICATION



## ● CARRIER TAPE DIMENSIONS



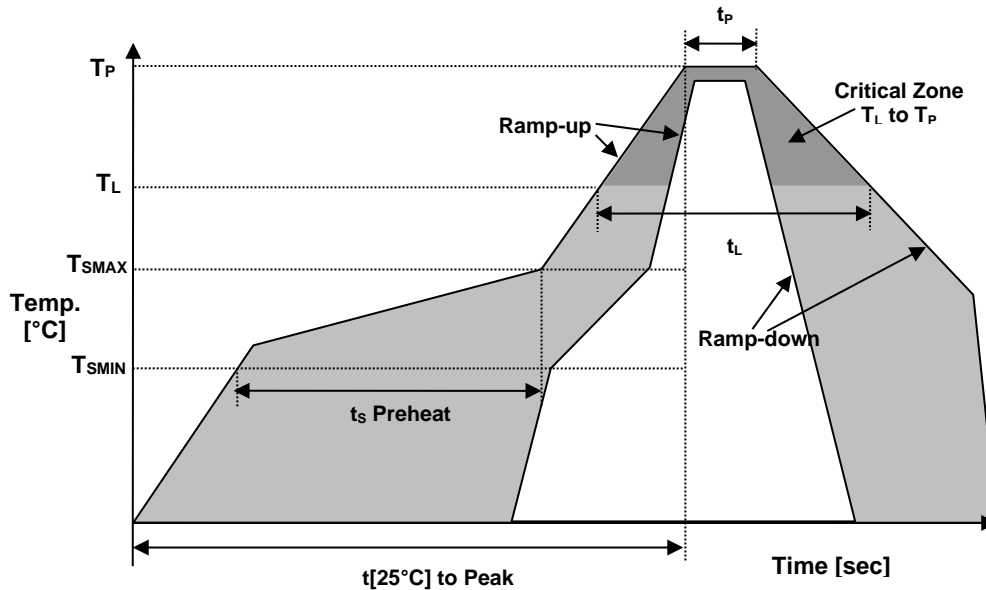
NOTE: REFER TO EIA-481 FOR DIMENSIONS

## ● PACKAGING

180 mm REEL DIAMETER  
 12 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

32.768

Xywwx

X – Internal Production ID code (J, R, T, Y, M, R, N, AA)

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

XLzymd

X – Internal Production ID code (J, R, T, Y, M, R, N, AA)

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 code

XzymF<sub>xx</sub><sup>xx</sup>

X – Internal Production ID code (J, R, T, Y, M, R, N, AA)

z – Frequency code

y – Year code

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

<sub>xx</sub><sup>xx</sup> – Lot code

Xywwx 32.768

X – Internal Production ID code (J, R, T, Y, M, R, N, AA)

y – Year code

ww – Week code

x – 1 or 2 digits as Lot code

3Xyx

3 – Item code

X – Internal Production ID code (J, R, T, Y, M, R, N, AA)

y – Year code

x – 1 or 2 digits as Lot code



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Xywwx

X – Internal Production ID code (J, R, T, Y, M, R, N, AA)
y – Year code
ww – Week code
L – Load capacitance code (A: 12.5pF B: 9pF C: 7pF D:6pF)

XXXLyww

XXX – PID
L – Load capacitance code (A: 6pF; B: 7pF; J: 9pF; F: 12.5pF)
y – Year code
ww – Week code

APPROVAL

Table with 2 columns: Field (Drawn By, Approved By, Revision) and Value (KJackson, June 18, 2015; A, Initial Release, Updated to current spec levels KJ 5/1/17; etc.)

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