#### SURFACE MOUNT MICROPROCESSOR CRYSTAL

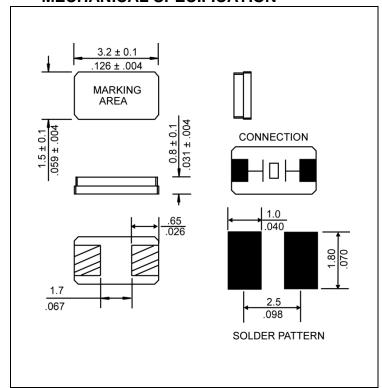
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#### RT3215-32.768-12.5-TR-NS19

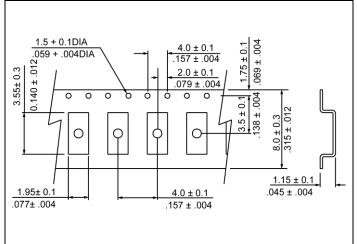
#### SPECIFICATIONS

PARAMETER	VALUE
FREQUENCY RANGE	32.768 kHz
FREQUENCY TOLERANCE AT 25°C	±20 ppm max
TURNOVER TEMPERATURE	+25 ±5°C
TEMPERATURE COEFFICIENT	$-0.035 \times 10^{-6} / {}^{\circ}\text{C}^{2} \text{ max}  \Leftrightarrow$
SHUNT CAPACITANCE	1.2 pF typ
LOAD CAPACITANCE	12.5 pF
EQUIVALENT SERIES RESISTANCE	70 kΩ max
DRIVE LEVEL	1 µW max ←
AGING	±3 ppm first year max
OPERATING TEMPERATURE RANGE	-40°C to +85°C Standard
STORAGE TEMPERATURE RANGE	-55°C to +125°C
MOTIONAL CAPACITANCE	3.7 fF typ
INSULATION RESISTANCE	500 MΩ max

# MECHANICAL SPECIFICATION



## CARRIER TAPE DIMENSIONS



NOTE: REFER TO EIA-481 FOR DIMENSIONS

## PACKAGING

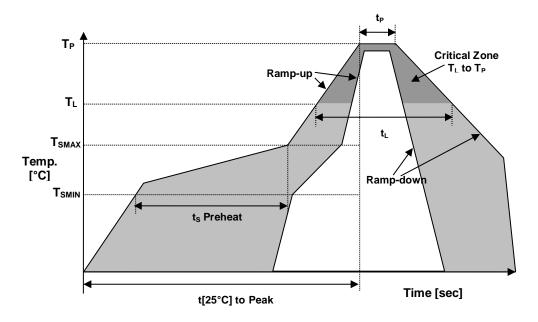
330 mm REEL DIAMETER 8 mm TAPE WIDTH, 4 mm PITCH QUANTITY: 3000 PIECES PER REEL

IN ACCORDANCE WITH EIA-481



# RT3215-32.768-12.5-TR-NS19

## 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∟	217°C
Peak Temperature	T <sub>P</sub>	260°C
Ramp-up rate	R <sub>UP</sub>	3°C/sec max.
Ramp-down rate	$R_{DOWN}$	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 <sub>L</sub>	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





# SURFACE MOUNT MICROPROCESSOR CRYSTAL

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## MARKING

R3xym

x – Internal Production ID code

y – Year code

m - Month 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 MONTH CODE TABLE		
Month	Code	
January	A	
February	В	
March	C	
April	D	
May	E	
June	F	
July	G	
August	H	
September	J	
October	K	
November	L	
December	M	

#### APPROVAL

Revision:	A Initial Release
Approval By:	KJackson
Date:	February 29, 2016

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