RT3215-32.768-12.5-TR Rev N

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 / $°C^2$ 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	50 kΩ typ , 70 kΩ max
SHUNT CAPACITANCE	1.1 pF typ, 1.8 pF max
MOTIONAL CAPACITANCE	3.5 fF typ, 7.0 fF max
DRIVE LEVEL	0.5 µW max
INSULATION RESISTANCE	500 MΩ min @ DC 100V

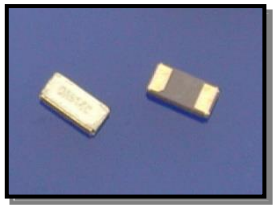
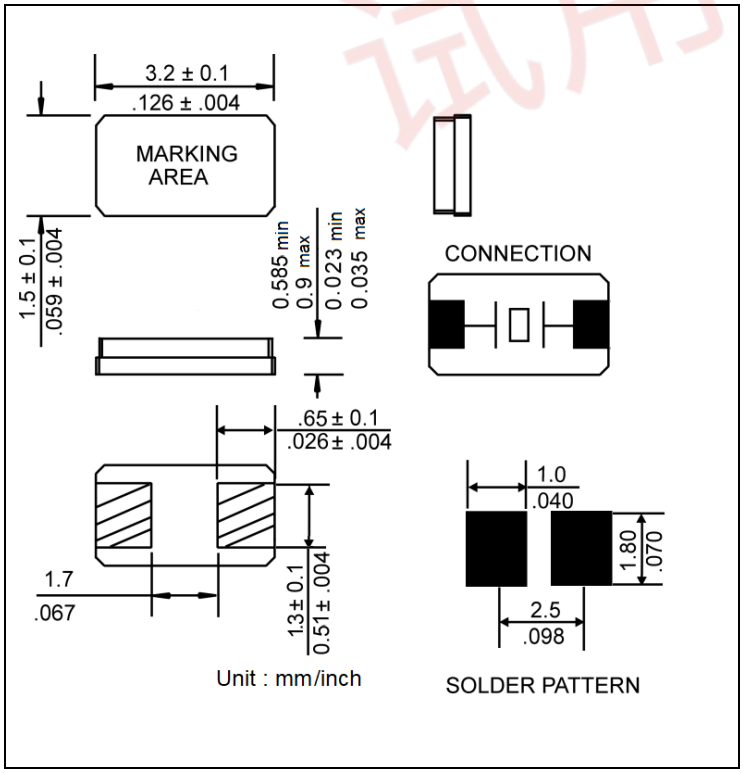
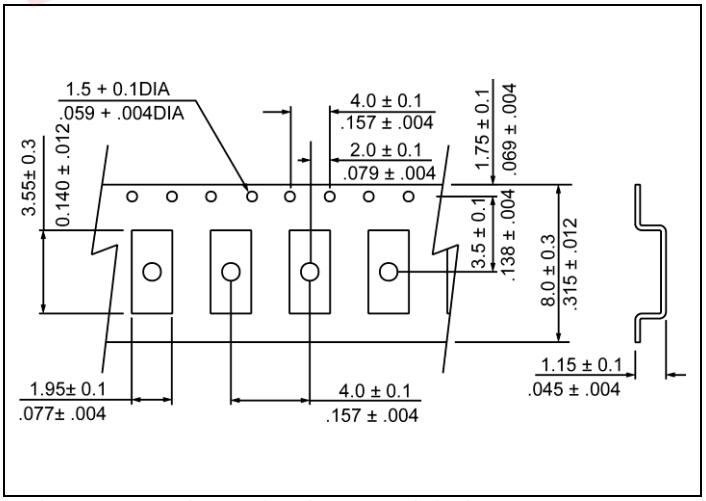


Photo not actual part

MECHANICAL SPECIFICATION



CARRIER TAPE DIMENSIONS



NOTE: REFER TO EIA-481 FOR DIMENSIONS

PACKAGING

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

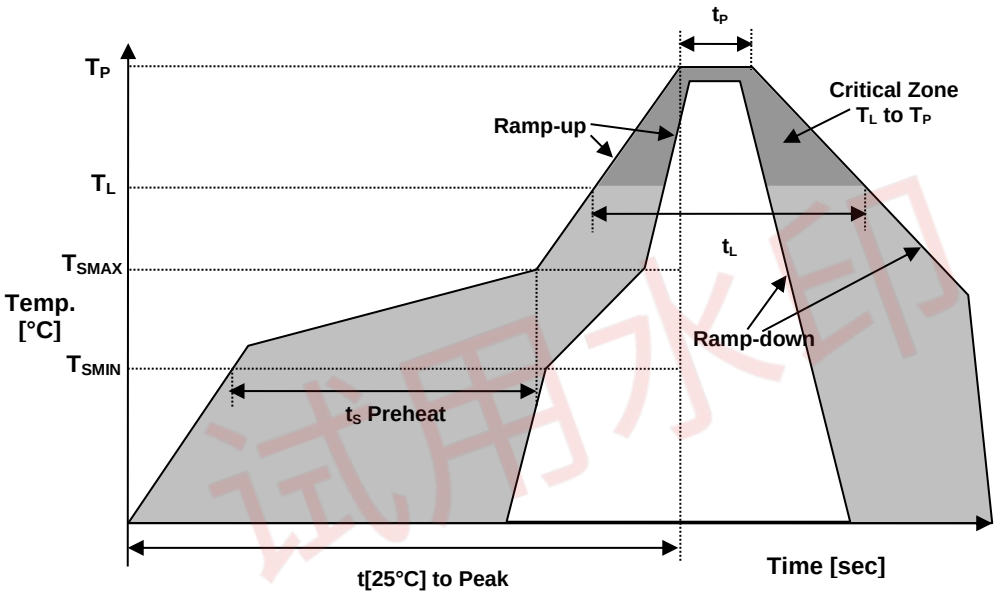
IN ACCORDANCE WITH EIA-481

PART NUMBERING SYSTEM

TYPE	-	FREQUENCY kHz	-	LOAD CAPACITANCE pF	-	TOLERANCE PPM*	-	TAPE & REEL
RT3215	-	32.768	-	6 , 7 , 9 or 12.5	-	5 or 10	-	TR

*Note: Not included in the PN if the Tolerance has the standard value 20ppm

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

RoHS Compliant

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

XLzymd

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 code

$XzymF^{xx}_{xx}$

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
$^{xx}_{xx}$ – Lot code

APPROVAL

Drawn By:	A, Initial Release
Approved By:	FP, 20 November 2013
Revision:	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 C_0,C_1 and ESR N, CP, June 29, 2020 Completed the Revision Level Changes