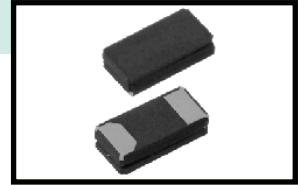


Quartz Crystal Resonator (32.768KHz)

TF3215A

AUTOMOTIVE, AEC-Q200



General Description

The TF3215A is a low frequency SMT Quartz Crystal Unit that incorporates a tuning fork Quartz Crystal Resonator. It operates under vacuum in a hermetically sealed ceramic package with metal lid.

Features

Outstanding hermetic sealing with gold-tin preform.
 High stability and low aging guaranteed by hermetic sealing.
 Available for extended operating temperature range.
 Small size, low profile, lightweight (10.3 mg).
 High shock and vibration resistant.
 100% Pb-free, RoHS-compliant.

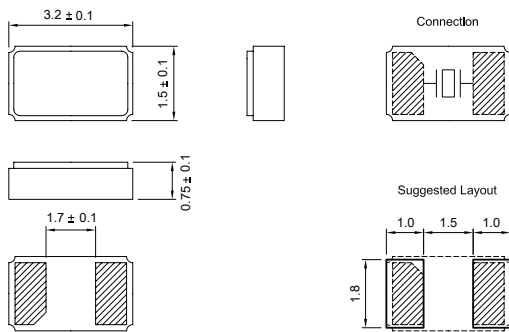
Main Applications

AUTOMOTIVE dashboard

Electrical characteristics

Item	Symbol	Values
Part number		TF3215A
Nominal frequency	F	32.768 KHz
Frequency tolerance (@ +25°C)	$\Delta f/F$	± 20 ppm
Frequency stability	$\Delta f/F$	-0.03 ppm/°C ²
Operating temp. range	To	-40°C / +85°C
Storage temp. range	Ts	-55°C / +125°C
Load capacitance	Cl	7.0 / 9.0 / 12.5
Equivalent serie resistance	ESR	70 K Ω max
Shunt capacitance	CO	1.5pF (typical)
Motional capacitance	C1	0.0067pF (typical)
Drive level	P	0.5 μ W max
Turnover temperature	Tt	+25°C \pm 5°C
Quality factor	Q	20000 min.
Aging	$\Delta f/F$	± 3 ppm max @ +25°C

Dimensions



Remark : specifications subject to change without prior notice. Please confirm with our sales

TF3215A

Part Number Generator

TF3215A - 0.032768 P12.5 C N TR xxx

1 2 3 4 5 6

1 : Frequency (MHz)

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max 10 digits including comma

2 : Load capacitance

P7 = 7pF
 P9 = 9pF
 P12.5 = 12.5pF

3 : Tolerance

C= $\leq \pm 20$ ppm

4 : Op. Temp. range

N=-40/+85

5 : Packing

TR = Tape & Reel (3K pcs)

6 : Customized code

Note : factory use

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