

Features

- Frequency range : 32.768 kHz
- SMD : Ceramic package
- External dimensions (mm)
L : 3.2 x W : 1.5 x H : 0.9
- RoHS compliant & Pb free

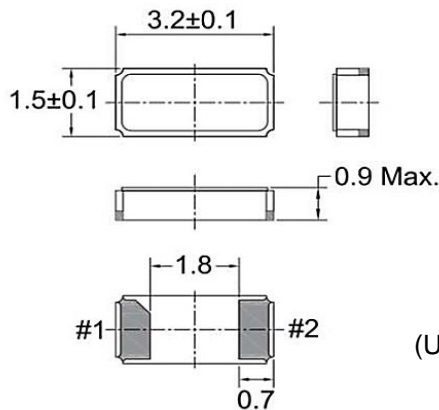
Applications

- Small mobile devices
- Communication devices
- Consumer products
- Smart meters
- Commercial & industrial applications

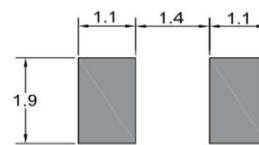
Electrical Characteristics

Item	Symbol	QT3CD	Conditions
Nominal Frequency	f_0	32.768 kHz	
Frequency Tolerance	$\Delta f/f_0$	$\pm 5\text{ppm}, \pm 10\text{ppm}, \pm 20\text{ppm}$	at 25°C
Load Capacitance	C_L	6pF, 7pF, 9pF, 12.5pF	
Operating Temperature Range	T_{OTR}	-40°C ~ +85°C	
Storage Temperature Range	T_{STR}	-55°C ~ +125°C	
Turnover Temperature	T_M	25°C \pm 5°C	
Temperature Coefficient	β	-0.034 \pm 0.006ppm/°C ²	
Motional Resistance (ESR)	R_1	70 kΩ Max.	at 25°C
Drive Level	D_L	1 μ W Max.	
Aging	$\Delta f/f_0$	± 3 ppm Max.	at 25°C \pm 3°C, first year
Shunt Capacitance	C_0	0.95 pF Typ.	

Dimensions



Recommended Pad Layout



Internal Connection

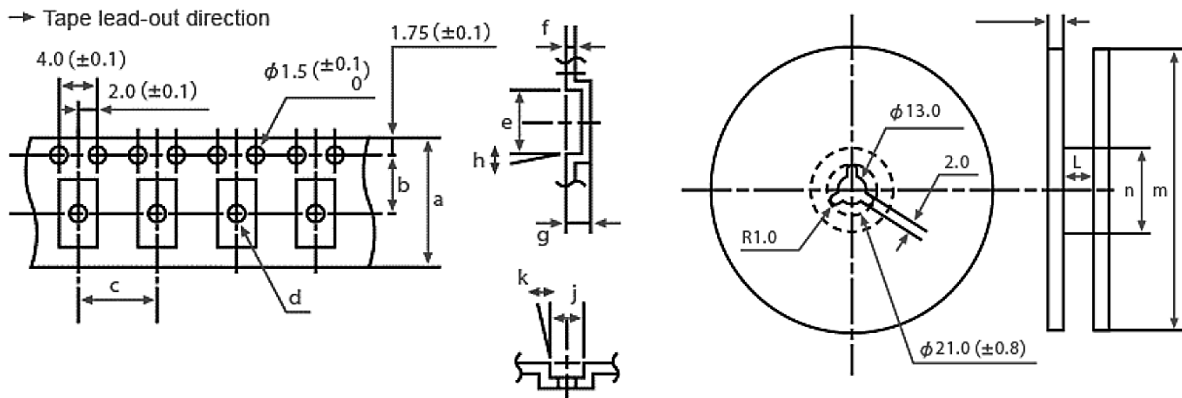


Ordering Information

QT3CD - 32.768K D Z F - T

Frequency Tolerance (at 25°C) D ± 20 ppm E ± 10 ppm H ± 5 ppm	Frequency Stability (over Temp.) Z Standard for kHz	Packaging Method T Tape & Reel	Load Capacitance B 6 pF Y 7 pF C 9 pF F 12.5 pF
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Packing



a	b	c	d (φ)	e	f	g	h	j	k	l	m (φ)	n (φ)
12.0	5.5	4.0	1.0	3.6	0.3	1.0	5°	1.9	5°	13.0	180	60

Reflow Profile

