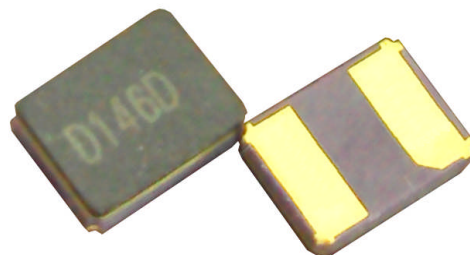


Quartz Crystal Series

3225CA

Features

- ◆ RoHS Compliant
- ◆ Ceramic/metal package



Electrical Specifications

Item	Specifications	Remarks
Nominal Frequency Range	9.800MHz to 66.000MHz	Fund.; AT-Cut
Frequency Tolerance	±10ppm(Standard) at 25℃±3℃	Others are offered
Load Capacitance	Fund.: 7pF to 20pF	Please specify
Series Resistance	As ESR table	
Shunt Capacitance	5pF Max	
Drive Level	100μW Max	
Operating Temperature	-40℃ to +85℃(Standard)	Others are offered
Storage Temperature	-55℃ to +125℃ / -55℃ to +185℃	
Stability vs. Temperature	±30ppm(Standard)	Others are offered
Insulated Resistance	500MΩ	Minimum
Aging	±2ppm/year	Maximum

ESR(Series Resistance)

Frequency(MHz)	Mode	Ohm Max	Frequency(MHz)	Mode	Ohm Max
9.800~11.999	Fund.;AT	150	20.0001~29.999	Fund.;AT	60
12.000~19.999	Fund.;AT	80	30.000~55.000	Fund.;AT	40

Stability vs. Temperature

◆ Standard		1	2	3	5	6	7	Remarks
◇ Please specify		±10ppm	±20ppm	±30ppm	±50ppm	±100ppm	±150ppm	
B	-10℃ to +60℃	◇				◇		
C	-20℃ to +70℃	◆	◇	◇	◇	◇	◇	
D	-40℃ to +85℃		◇	◆	◇	◇	◇	Standard
E	-40℃ to +125℃			◇	◆	◇	◇	
F	-45℃ to +150℃				◇	◆	◇	

Ordering Information

Q	R	Type	Pin	XX.XXXX	M	Mode	CL pF	Freq.Tolerance at 25℃	Operati ng Temp.	Stability Vs.Temp.	Option
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Q:Quartz 32C: 3.2*2.5mm Ceramic
R:Resonator
A:2 Center frequency 9.8 to 55.0MHz
M: MHz
F:Fund.;AT
See Table
±10ppm to ±150ppm
See Table
See Table
F:Lead Free
Blank:T&R

Example:QR32CA16.0000MFF3D3F

(Crystal,SMD3.2*2.5mm, Ceramic , 2pins, 16.0000MHz, Fund:AT,8pF,+/-30ppm,-40 to +85℃deg,+/-30ppm.T&R,Lead free)

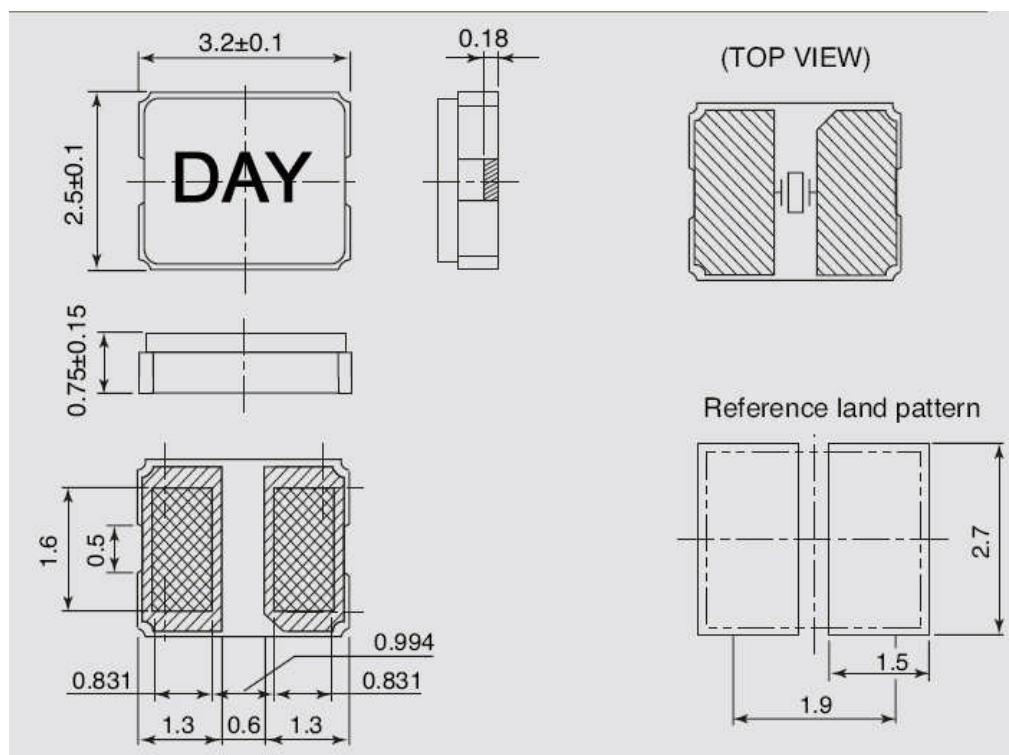
Quartz Crystal Series

3225CA

Load Capacitance Codes

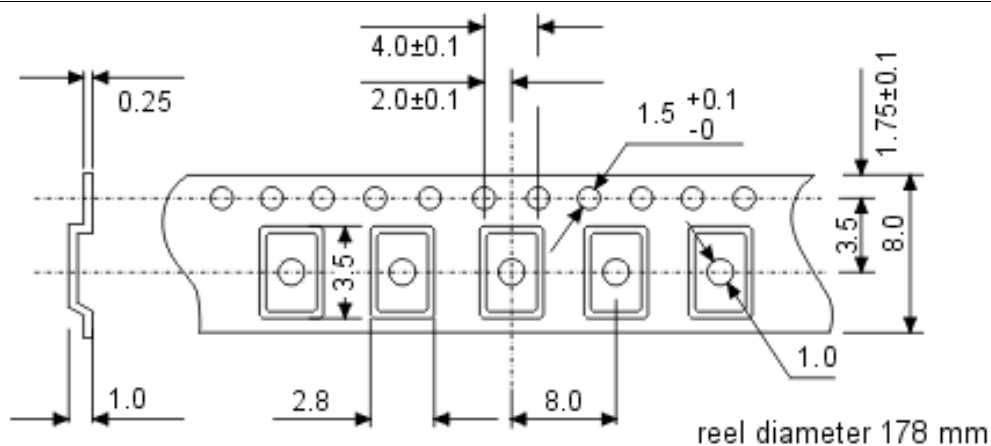
7pF: E	8pF: F	9pF: B	10pF: R
12pF: T	15pF: H	16pF: I	18pF: J
20pF: K	22pF: L	25pF: G	27pF: M
30pF: N	32pF: P	33pF: W	Series: S

Dimensions



Unit:mm

Taping Specification



3000pcs/Reel

Quartz Crystal Series

3225CA

Reflow Soldering Profile

