



3225 Ceramic SMD Crystals

■ Holder Type: C7 (4 pads 3.2×2.5)

Frequency Range:

12.00MHz to 50.00MHz

Features:

- High Reliability & Low Cost Unit
- Tight Stability & Extended Temperature Available
- Lead-free Type
- For automotive applications, please contact our sales representative



Actual Size



QUARTZ
CRYSTALS

■ Standard Specifications

Item	Value
Frequency Range	12.00 to 50.00MHz
Frequency Tolerance	±30ppm (tighter tolerance also available)
Frequency Tolerance over Temperature range	±50ppm (tighter tolerance also available)
Operating Temperature Range	-10 °C to +60 °C (other operating range also available)
Operable Temperature Range	-40 °C to +85 °C
Equivalent Series Resistance (ESR)	Please refer to the ESR Table
Drive Level	50µW (0.001µW to 1000µW also available)
Load Capacitance	12pF (3pF, 4.5pF, 6pF and series also available)
Aging	±5ppm/year

■ ESR Table

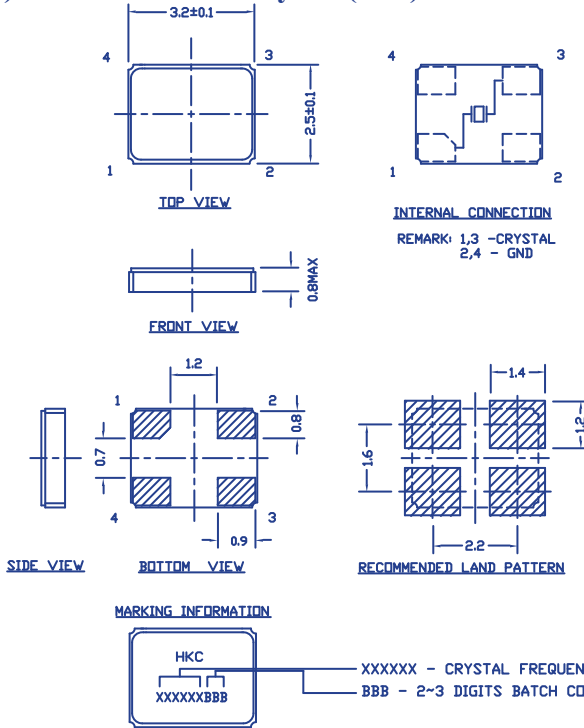
Frequency Range (MHz)	Mode	Standard ESR (Ohm)
12 to 13	AT Cut Fund.	200
13 to 16	AT Cut Fund.	150
16 to 20	AT Cut Fund.	80
20 to 22	AT Cut Fund.	60
22 to 50	AT Cut Fund.	50

Note:

1. Manufacturer reserves the right to change the specification and content of this product for improvement without notification.
2. Custom specification is welcome. Please contact our sales representative for further details.
3. If the crystal is intended for applications which have direct impact on human life and properties, and require a high degree of reliability and safety concerns, customers must provide full information such as but not limit to the application, electrical and reliability specification at the inquiry beginning stage.

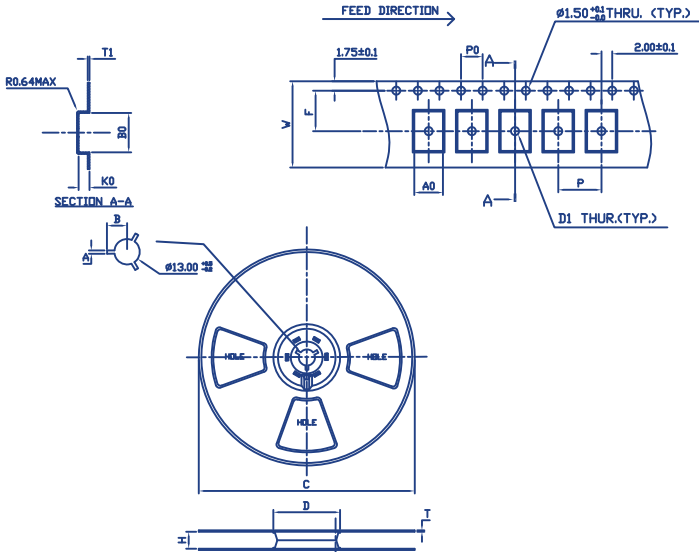


■ Dimensions (mm) and Solder Pad Layout (mm)



Note: #2 & #4 are connected with the cover

■ Tape & Reel (mm)



		3.2x2.5 SMD
T A P E	PART NO	48065011
	W	8.00 ±0.20
	P	4.00±0.10
	A0	2.80±0.10
	B0	3.50±0.10
	K0	0.80±0.10
	P0	4.00±0.10
	F	3.50±0.10
	D1	1.00 ±0.05
	T1	0.20±0.05
R E E L	PART NO	48065015
	C	Ø178±1
	A	2.6±0.2
	B	10.85±0.20
	D	Ø60.0±0.5
	H	9.5±0.8
T	1.2±0.2	
QTY.		1000PCS/R