



2520 Ceramic SMD Crystals

■ Holder Type: CK (4 pads 2.5×2.0)

Frequency Range:

12.00MHz to 80.00MHz

Features:

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



Actual Size



■ Standard Specifications

Item	Value
Frequency Range	12.00 to 80.00MHz
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 Typ. (200µW Max.)
Load Capacitance	8pF (3pF, 4.5pF, 6pF and series also available)
Ageing	±5ppm/year

■ ESR Table

Frequency Range (MHz)	Mode	Standard ESR (Ohm)
12 to 15	AT Cut Fund.	180
16 to 20	AT Cut Fund.	150
20 to 30	AT Cut Fund.	100
30 to 80	AT Cut Fund.	60

Note:

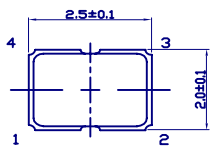
1. Manufacturer reserves the right to change the specification and content of this product for improvement without notification.
2. Custom specification is welcome. Please contact our sales representative for further details.
3. If the crystal is intended for applications which have direct impact on 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.
4. Customers have to agree to the "Guideline for handling crystal units" and "Standard Terms and Condition of Sales" which is printed this catalog before placing orders to our company or our distributors. There are also unpredictable factors such as applied condition, oscillation margin and etc and customers must check them beforehand. In case of queries, please do not fail to send inquiry to our company before ordering.

Ver.1.1

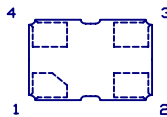
QUARTZ
CRYSTALS



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



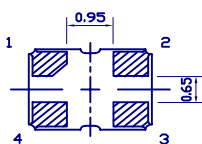
TOP VIEW



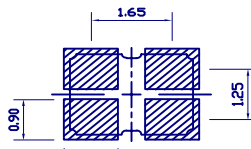
INTERNAL CONNECTION
REMARK: 1,3-CRYSTAL
2,4-GND



FRONT VIEW



BOTTOM VIEW



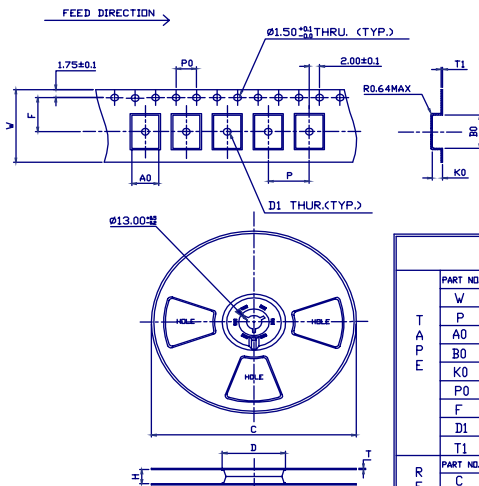
RECOMMENDED LAND PATTERN

MARKING INFORMATION



XXXXXX = CRYSTAL FREQUENCY
YYYYYYY - 2~7 DIGITS TRACEABILITY CODE

■ Tape & Reel (mm)



	8x4.5 SMD	7x5 SMD	6x3.5 SMD	5x3.2 SMD	4x2.5 SMD	3.2x2.5 SMD	2.5x2.0 SMD	
T A P E	PART NO.	48065002	48065001	48060036	48065023	48065018	48065014	
	W	16.00 ^{+0.13} _{-0.10}	16.00 ^{+0.13} _{-0.10}	16.00 ^{+0.13} _{-0.10}	12.00 ^{+0.13} _{-0.10}	12.00 ^{+0.13} _{-0.10}	8.00 ^{+0.13} _{-0.10}	8.00 ^{+0.13} _{-0.10}
	P	8.00±0.1	8.00±0.1	8.00±0.1	8.00±0.1	8.00±0.1	4.00±0.1	4.00±0.1
	A0	4.80±0.1	5.40±0.1	3.75±0.1	3.50±0.1	2.70±0.1	2.80±0.1	2.40±0.1
	B0	8.30±0.1	7.40±0.1	6.20±0.1	5.40±0.1	4.20±0.1	3.60±0.1	2.85±0.1
	K0	1.70±0.1	1.65±0.1	1.20±0.1	1.50±0.1	1.00±0.1	1.25±0.1	1.15±0.1
	P0	4.00±0.1	4.00±0.1	4.00±0.1	4.00±0.1	4.00±0.1	4.00±0.1	4.00±0.1
	F	7.50±0.1	7.50±0.1	7.50±0.1	5.50±0.1	5.50±0.1	3.50±0.1	3.50±0.1
	D1	1.50 ^{+0.10} _{-0.05}	1.50 ^{+0.10} _{-0.05}	1.50 ^{+0.10} _{-0.05}	1.50 ^{+0.10} _{-0.05}	1.50 ^{+0.10} _{-0.05}	1.00 ^{+0.10} _{-0.05}	1.00 ^{+0.10} _{-0.05}
	T1	0.30±0.05	0.30±0.05	0.30±0.05	0.30±0.05	0.30±0.05	0.20±0.05	0.25±0.05
R E E L	PART NO.	48060024	48060050	48065020	48065026	48065020	48065015	
	C	Ø178.0±1	Ø330±1	Ø178±1	Ø330±1	Ø178±1	Ø330±1	
	D	Ø50.0±0.5	Ø100.0±1	Ø60.0±0.5	Ø100.0±1	Ø60.0±0.5	Ø100.0±1	
	H	16.5±0.5	16.5±0.5	13.1±0.2	12.5±0.5	13.1±0.2	12.5±0.5	
	T	1.50±0.2	2.3±0.3	1.2±0.2	2.3±0.3	1.2±0.2	2.3±0.3	
STANDARD PACKING QTY./REEL	1000PCS	4000PCS	1000PCS	5000PCS	2000PCS	5000PCS	3000PCS	
MAXIMUM PACKING QTY./REEL	1300PCS	1800PCS	4600PCS	6300PCS	1400PCS	5500PCS	2100PCS	