



# SPECIFICATION

PN: SJK-7U20000MAZ2430A8

深圳市晶科鑫实业有限公司

SHENZHEN CRYSTAL TECHNOLOGY INDUSTRIAL CO., LTD.

| VER | DESIGNED | CHECKED | APPROVED |
|-----|----------|---------|----------|
| A1  | 邵丹斌      | 李相同     | 刘忠亮      |

## CUSTOMER APPROVAL

|                                                                                                    |                            |          |      |
|----------------------------------------------------------------------------------------------------|----------------------------|----------|------|
| SPECIFICATION :                                                                                    | 晶振 / 3225 Seam / 20.000MHz |          |      |
| SJK PN. :                                                                                          | SJK-7U20000MAZ2430A8       |          |      |
| CUSTOMER PN. :                                                                                     |                            |          |      |
| CHECKED 1                                                                                          | CHECKED 2                  | APPROVED | DATE |
|                                                                                                    |                            |          |      |
| Result: <input type="checkbox"/> PASS <input type="checkbox"/> FAIL <input type="checkbox"/> OTHER |                            |          |      |

## FEATURE

- Reliable seam sealed ceramic package.
- Wide operating temperature range.
- Superior performance and stringent reliability in harsh environment.
- Application: TPMS, ECM, ABS and sensor modules.
- Compact size.
- RoHS Compliant / Pb Free.

## ELECTRICAL SPECIFICATIONS

|                                                                |                 |
|----------------------------------------------------------------|-----------------|
| Nominal Frequency                                              | 20.000MHz       |
| Mode                                                           | AT/Fundamental  |
| Frequency Tolerance (at 25°C)                                  | ±20ppm          |
| Frequency Stability Over Operating Temperature Characteristics | ±30ppm          |
| Operating Temperature Range                                    | -40°C to +85°C  |
| Storage Temperature Range                                      | -55°C to +125°C |
| Shunt Capacitance (C0)                                         | 3.0 PF Max      |
| Driver Level (DL)                                              | 100μW Typical   |
| Load Capacitance(CL)                                           | 10PF            |
| Equivalent Series Resistance(ESR)                              | 80Ω Max         |
| Aging @25°C first year (Max)                                   | ±3ppm/year      |

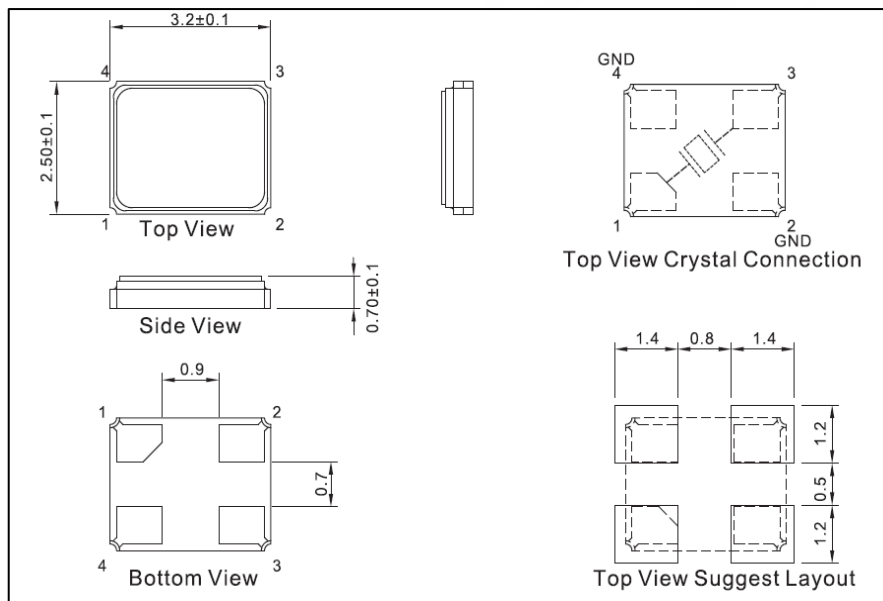
REMARK: SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE,  
PLEASE CONFIRM WITH OUR SALES ENGINEER.

# Crystal Resonators

## SMD Seam 3.2×2.5×0.7mm 7U Series



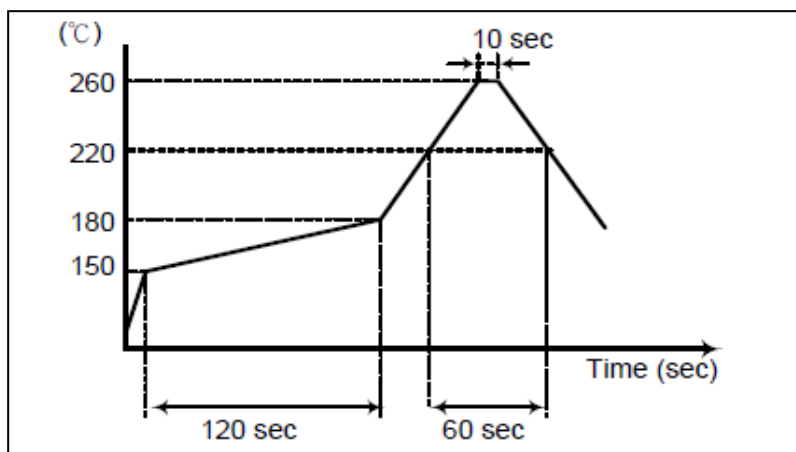
### DIMENSION (Unit: mm)



### MARK

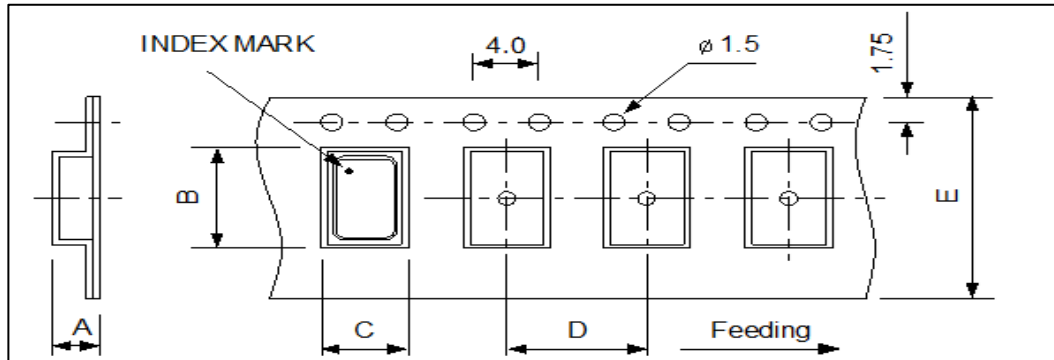


### REFLOW CONDITION

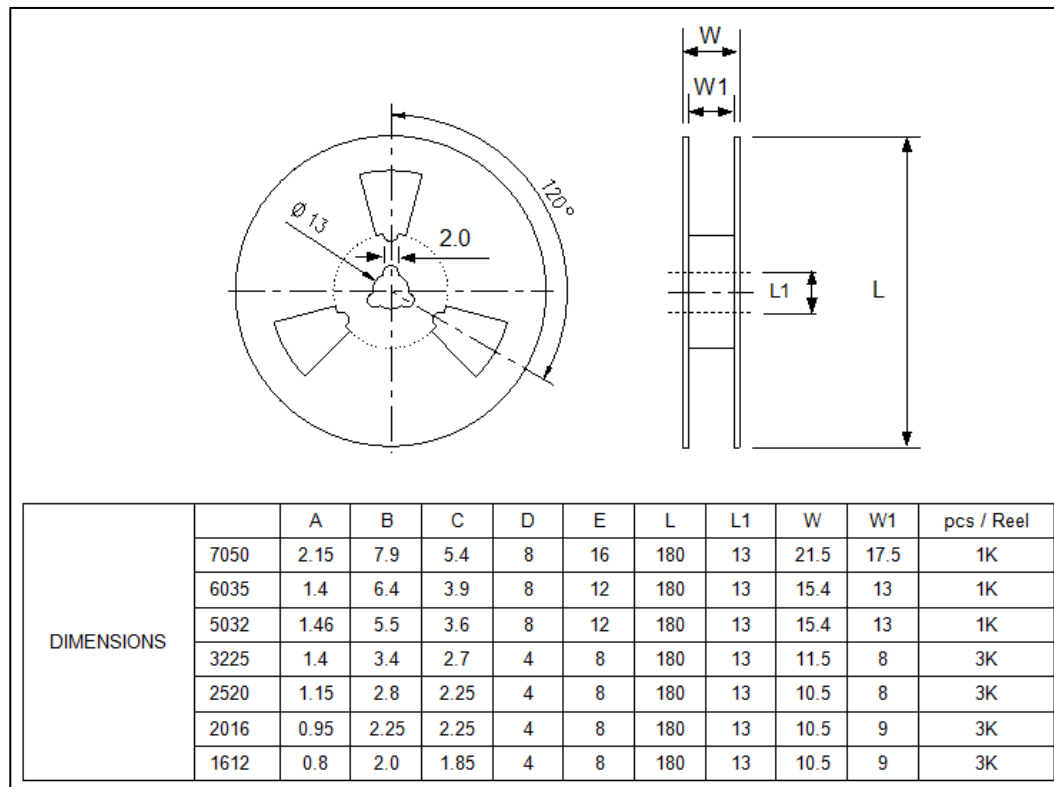


The reflow temperature profile may vary depending on the product model, specifications and frequency range. Refer to the individual product specifications for details

## CARRIER TYPE



## REEL



## RELIABILITY TEST SPECIFICATIONS

| Test item                                  | Equipment                              | Condition                                                                                     | Specification                  |
|--------------------------------------------|----------------------------------------|-----------------------------------------------------------------------------------------------|--------------------------------|
| 1.SOLDERABILITY TEST                       | SJK-REL001、RC-328A                     | TP:260℃ TsMax: 200℃ TsMin: 150℃<br>2 time<br>                                                 | MIL-STD-883E<br>Method 2003.7  |
| 2. HERMETICITY TEST                        | HELIOT-306S                            | Pressurized 0.4~0.5Mpa ethanol sealed tank for 10 minutes                                     | MIL-STD-883E<br>Method 1014.10 |
| 3. VIBRATION TEST                          | HG-V4、S&A 250B                         | Enable Crystal(10g) from 10-55-10Hz,X、Y、Z horizontal,1 Minute vibration/time, 1time/ 2 hours. | MIL-STD-883E<br>Method 2007.3  |
| 4. MECHANICAL SHOCK                        | HPC-200、S&A 250B                       | Enable Crystal 50G(490m/s <sup>2</sup> ) time=11 ms speed=3.4 m/s half sine wave oscillation  | JIS C6701                      |
| 5. DROP TEST                               | HARD BOARD.S&A250B                     | 75cm High,3 times on hard board                                                               | MIL-STD-202F<br>Method 213B    |
| 6. HIGH&LOW TEMP STORAGE TEST(Static test) | H-PTH-80CK & HM101-3ABN, S&A 350B/250B | High temperature: 125℃±2℃,1000hr; Low temperature:-40℃±3℃,1000hrs                             | MIL-STD883C,<br>METHOD 1011.8  |
| 7. TEMP & HUM CYCLING TEST                 | H-PTH-80CK CHAMBE, S&A 350B/250B       | Temperature:-10℃±2℃~65℃±2℃,Humidity:93±3%,1 cycle need 24 hrs. 5cycles.                       | MIL-STD-883E<br>Method 1005.8  |
| 8. HIGH TEM. & HUM.STORAGE TEST            | H-PTH-80CK CHAMBE, S&A350B/250B        | Temperature:85℃±2, Humidity:85+3,-2%,Store 96 hrs                                             | JIS C6701                      |
| 9. AGING TEST                              | H-PTH-80CK CHAMBE, S&A350B/250         | Temperature:85℃±2, Store 1000 hrs                                                             | JIS C5023                      |

## REVISION RECORD (SJK-7U20000MAZ2430A8)

| Rev | Revise contents  | Reason | Reviser | Checked | Approved |
|-----|------------------|--------|---------|---------|----------|
| A1  | Initial released | --     | 贺丹斌     | 李相同     | 刘惠光      |
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