

Crystal oscillator

SMD CMOS Output 7.0×5.0×1.3mm 6N Series



SPECIFICATION

PN: KSE-6N25000M3C045ZA3

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FEATURE

- Small SMD seam sealed clock crystal oscillator units.
- High precision characteristic covering up to wide frequency range.
- Designed for automatic mounting and reflow soldering.
- Tri-State function available.
- Supply voltage range : 1.8 V ~ 5.0 V.
- High stability, low jitter, low power consumption.
- Main application : wireless communication set, PC, and LCDM.
- RoHS Compliant / Pb Free.

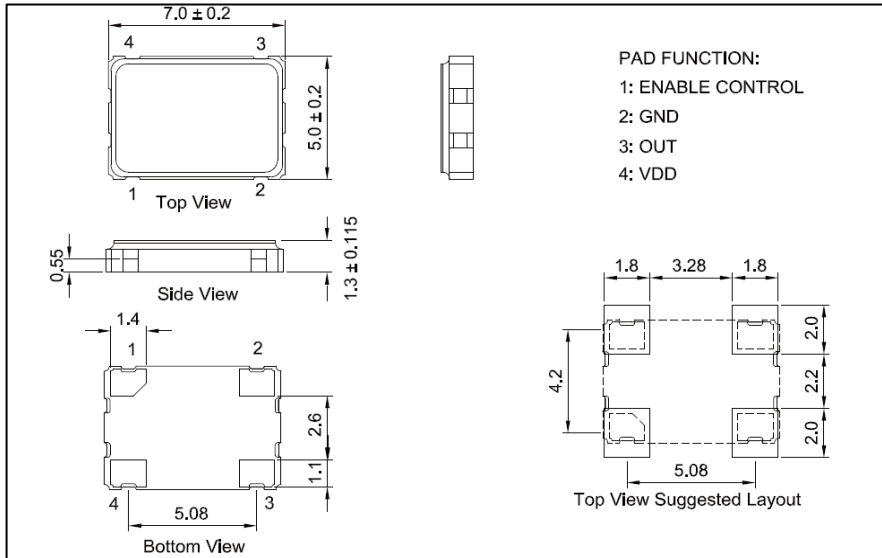
ELECTRICAL SPECIFICATIONS (电气参数)

| Parmeters | Condition\Model | 6N |
|-----------------------|--------------------------|---------------------------|
| Fan Out Type | | CMOS |
| Supply Voltage | | 3.3V±10% |
| Frequency | | 25.000MHz |
| Operating Temperature | | -40°C to +85°C |
| Current | | 20mA max |
| Frequency Stability | All Conditions | ±50ppm |
| Output Voltage | Vol(max) | 10%VDD |
| | VoH(min) | 90%VDD |
| Rise/Fall Time | AT 0.1Vdd~0.9Vdd | 5ns max |
| Load Capacitance | | 15pF |
| Duty Cycle | | 50±10% |
| Storge Temperature | | -55~+125°C |
| Start-upTime | Load RANGE | 5mSec max |
| Aging | | ±3ppm(1st ,year at 25 °C) |
| Tri-State | Output Active | 2.31V Min Pin 1 Tri-state |
| | Output in High-Impedance | 0.99V Max |
| PAD Connection | PIN#1 Tri-State/NC | PIN#3 OUT |
| | PIN#2 GND | PIN#4 Vdd |

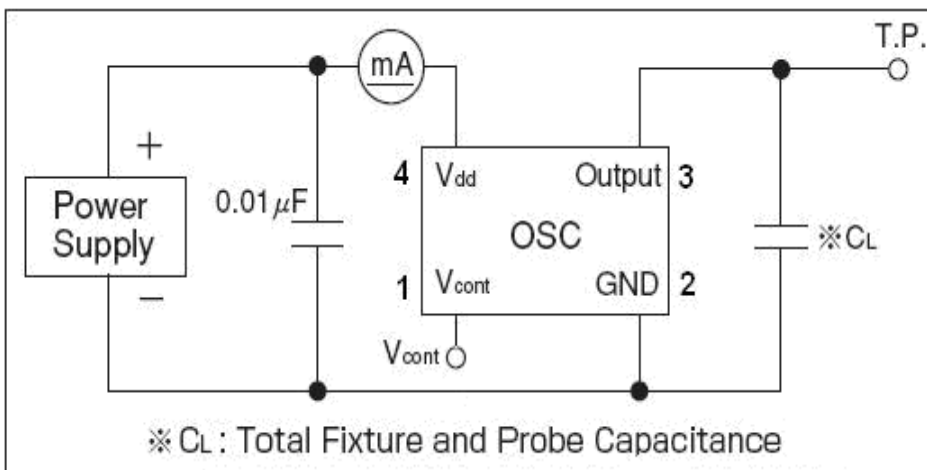
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Dimension (尺寸) (Unit: mm)



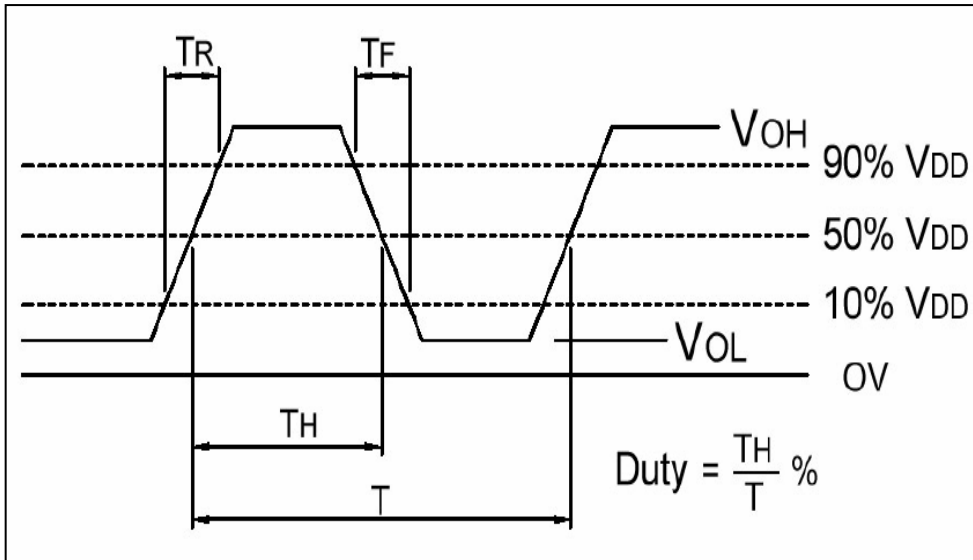
MEASUREMENT CIRCUIT (电路)



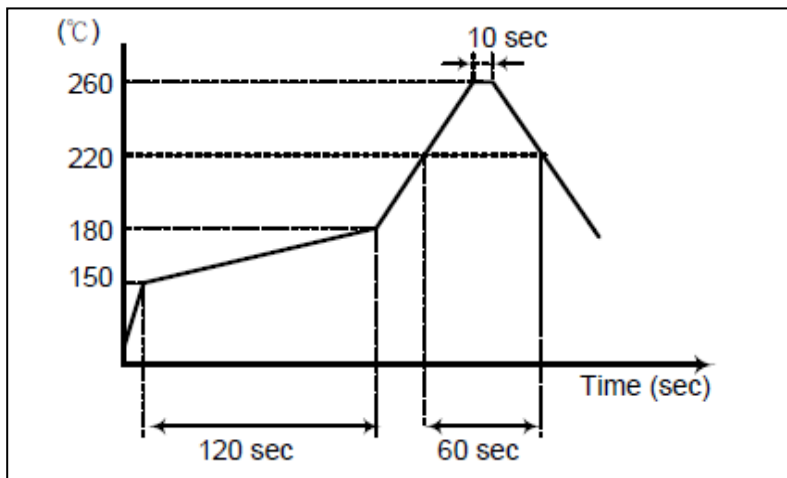
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WAVEFORM CONDITIONS (波形)



REFLOW CONDITION (回流焊)

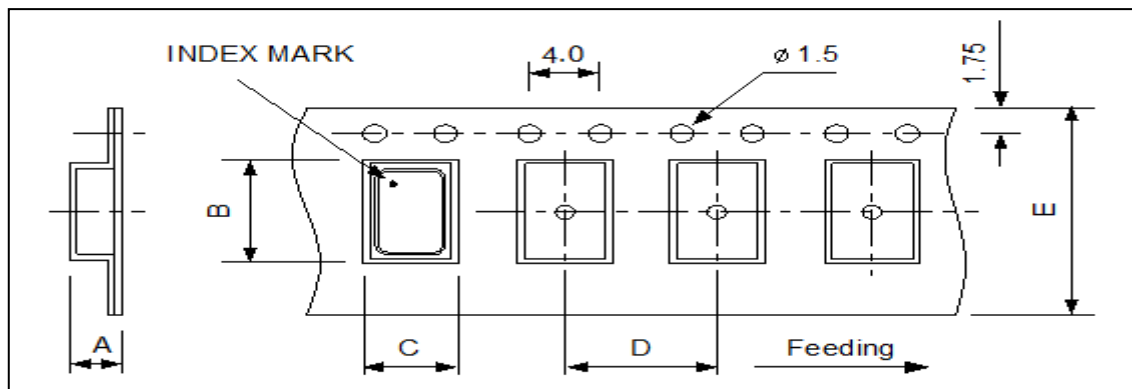


The reflow temperature profile may vary depending on the product model, specifications and frequency range. Refer to the individual product specifications for details

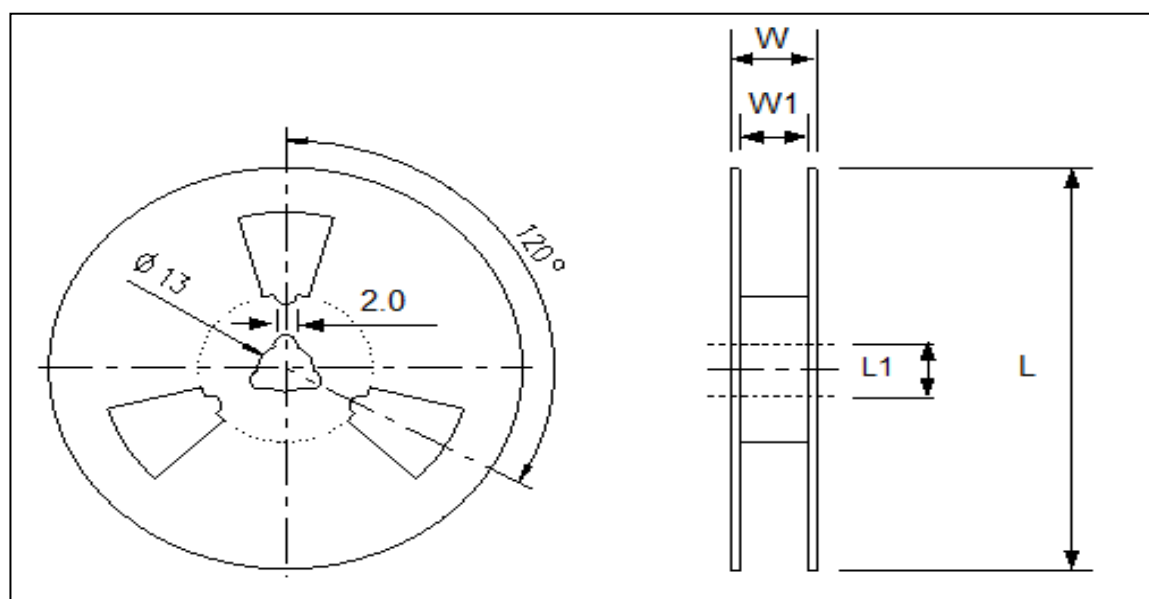
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CARRIER TYPE (載帶)



REEL(卷盘)



| DIMENSIONS | | A | B | C | D | E | L | L1 | W | W1 | pcs / Reel |
|------------|------|------|------|------|---|----|-----|----|------|------|------------|
| | 7050 | 2.15 | 7.9 | 5.4 | 8 | 16 | 180 | 13 | 21.5 | 17.5 | 1K |
| | 6035 | 1.4 | 6.4 | 3.9 | 8 | 12 | 180 | 13 | 15.4 | 13 | 1K |
| | 5032 | 1.46 | 5.5 | 3.6 | 8 | 12 | 180 | 13 | 15.4 | 13 | 1K |
| | 3225 | 1.4 | 3.4 | 2.7 | 4 | 8 | 180 | 13 | 11.5 | 8 | 3K |
| | 2520 | 1.15 | 2.8 | 2.25 | 4 | 8 | 180 | 13 | 10.5 | 8 | 3K |
| | 2016 | 0.95 | 2.25 | 2.25 | 4 | 8 | 180 | 13 | 10.5 | 9 | 3K |
| | 1612 | 0.8 | 2.0 | 1.85 | 4 | 8 | 180 | 13 | 10.5 | 9 | 3K |

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RELIABILITY TEST SPECIFICATIONS (可靠性测试标准)

| Test item | Equipment | Condition | Specification |
|--|--|---|-----------------------------|
| 1.SOLDERABILITY TEST | KSE-REL001、RC-328A | 1.Solderability:235±5℃, 5±0.5S 2.Heat resistance:260±5℃,10±1S restoration of 1 hour | MIL-STD-883E Method 2003.7 |
| 2. HERMETICITY TEST | HELIOT-306S | FC-84 FLUOROCARBON,BUBBLE MACHINE | MIL-STD-883E 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 Method 2007.3 |
| 4. MECHANICAL SHOCK | HPC-200、S&A 250B | Enable Crystal 50G(490m/s ²) 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 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, 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 Method 1005.8 |
| 8. HIGH TEM. & HUM. STORAGE TEST | H-PTH-80CK CHAMBE, S&A350B/250B | Temperature:40℃±2, Humidity:85+3,-2%,Store 96 hrs | JIS C6701 |
| 9.AGING TEST | H-PTH-80CK CHAMBE, S&A350B/250 | Temperature:40℃±2, Humidity:85+3,-2%,Store 96 hrs | JIS C5023 |