

SM7050-6

Features:

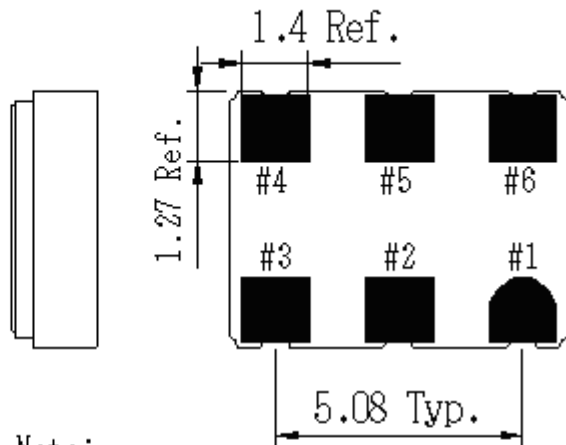
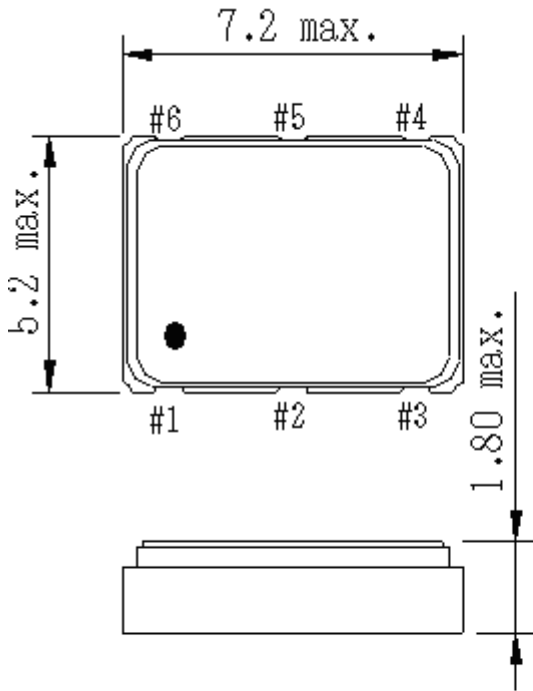
- 3.3V Operation / Complementary PECL Output
- Enable / Disable Function (6-Pad)
- Main application: WLAN, SONET/SDH/DWDM, Gigabit Ethernet, Storage Area Network, Digital Video.
- Surface mount 5.0mmx7.0mm crystal oscillator

Electrical Specifications:

| Characteristics | Units | Minimum | Typical | Maximum |
|--|-------------|--|-------------|----------|
| Center Frequency | MHz | | 122.88 | |
| Storage Temperature Range | °C | -40 | | 85 |
| Operating Temperature Range | °C | -40 | | 85 |
| * Absolute Pulling Range (APR) | ppm | +/-50 | - | - |
| Input Voltage (Operating Vdd) | VDC | - | 3.3+/-10% | - |
| Control Voltage (Vt) | VDC | | 1.65+/-1.35 | |
| Current Consumption | mA | - | - | 80 |
| Output | | | | |
| Load | ohm | - | 50 | - |
| “0” Level (Output Logic Low) | VDC | Vdd-1.81 | - | Vdd-1.62 |
| “1” Level (Output Logic High) | VDC | Vdd-1.025 | - | Vdd-0.88 |
| Duty Cycle | % | 45% | - | 55% |
| Rise Time (20%->80% VDD) | nSec | - | - | 1.0 |
| Fall Time (80%->20% VDD) | nSec | - | - | 1.0 |
| Start-up Time | ms | - | - | 10 |
| Enable Voltage High(Logic 1) | V | 0.7VDD | - | - |
| Enable Voltage Low(Logic 0) | V | - | - | 0.3VDD |
| Phase Jitter (Integrated 12K~20MHz) | ps | - | - | 1.0 |
| Linearity | % | - | - | 10 |
| Enable/Disable Function | | PIN#2: High or Open , PIN#4, #5: Enable PIN#2: Low , PIN#4, #5: Disable | | |
| Package size | | SMD7.0x5.0x1.8mm | | |

* Note1 : APR=Pull Range-(frequency tolerance at 25°C,variation over temperature, supply voltage and aging)

Mechanical Dimensions (mm):



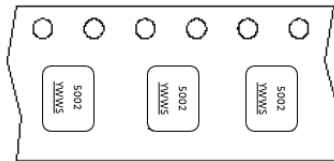
Note:

1. All unit in mm
2. Pin #1 : Voltage control Pin #2 : OE
Pin #3 : GND Pin #4 : Q
Pin #5 : Qbar Pin #6 : VDD

Marking:

Line 1: 5002

Line 2: YWWS(year ;week number ;shift)

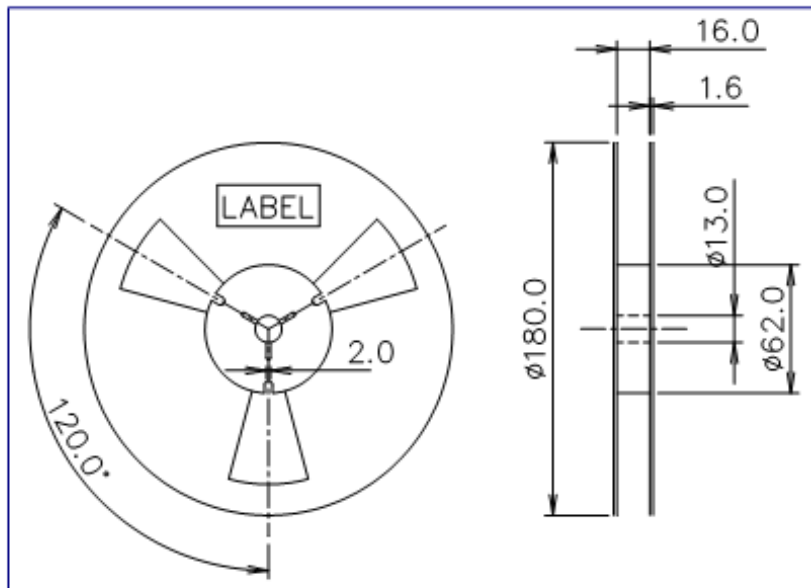


Shift Code Table

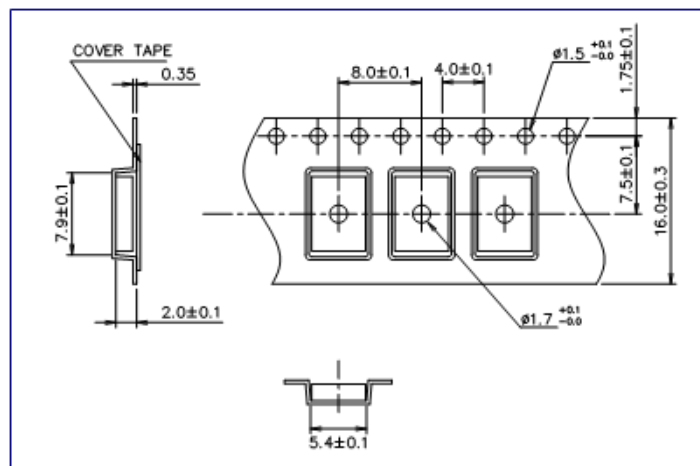
| | Mon | Tue | Wed | Thu | Fri | Sat | Sun |
|---------|-----|-----|-----|-----|-----|-----|-----|
| A Shift | A | D | G | K | N | S | V |
| B Shift | B | E | H | L | P | T | W |
| C Shift | C | F | J | M | R | U | X |

Tape & Reel:

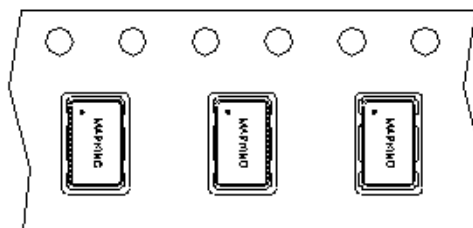
- Packing Quantity: 1k /Reel
- Reel dimension (unit: mm)



- Tape dimension (unit: mm)



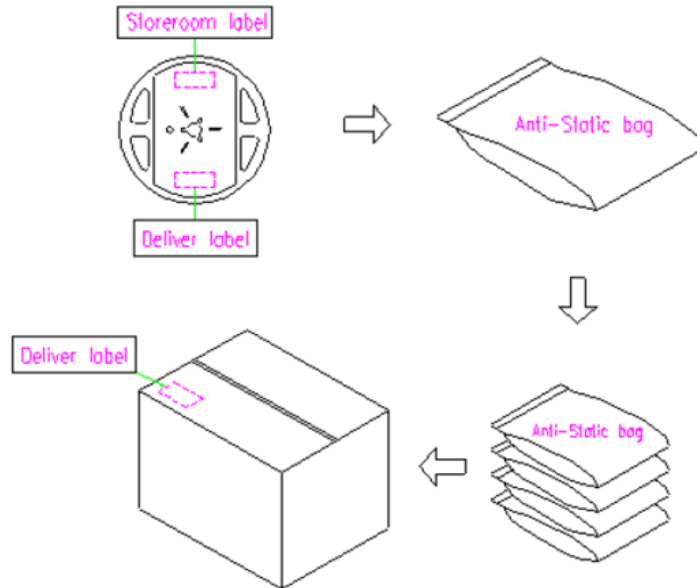
- Packing direction



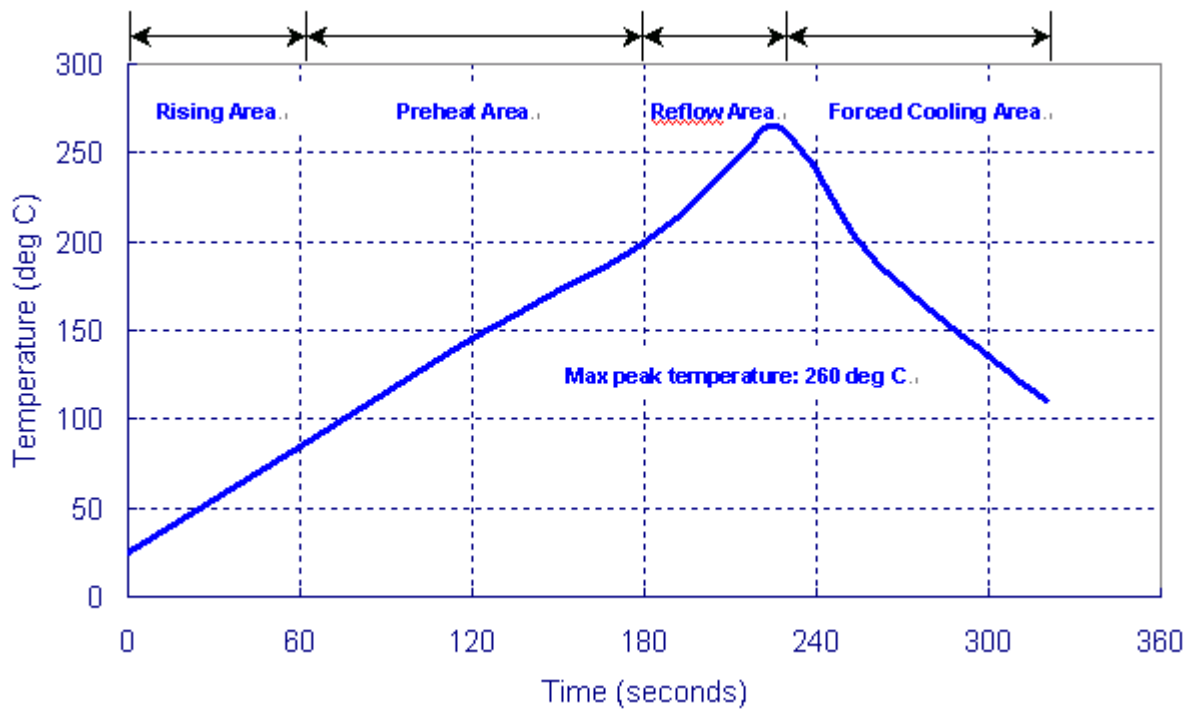
Packing Quantity/Packing:

1K pcs maximum per reel

Packing Quantity/Packing:



Reflow Profile:



**Note: 1. Max peak temperature: 260+/-5 deg C; Time: 10+/-2 sec
2. Temperature: 217+/-5 deg C; Time: 90~100 sec**

Reliability Specifications

| Test name | Test process / method | Reference standard |
|--|---|--|
| Mechanical characteristics | | |
| resistance to Soldering heat (IR reflow) | Temp./ Duration : 260°C /10sec ×2 times Total time : 4min.(IR-reflow) | EIAJED-4701 -300(301)M(II) |
| Vibration | Total peak amplitude : 1.5mm Vibration frequency : 10 to 55 Hz Sweep period : 1.0 minute Vibration directions : 3 mutually perpendicular Duration : 2 hr / direc. | MIL-STD 202F method 201A |
| Mechanical Shock | directions : 3 impacts per axis Acceleration : 3000g's, +20/-0 % Duration : 0.3 ms (total 18 shocks) Waveform : Half-sine | MIL-STD 202F method 213C |
| Solderability | Solder Temperature:265±5°C Duration time: 5±0.5 seconds. | MIL-STD 883G method 2003 |
| Environmental characteristics | | |
| Thermal Shock | Heat cycle conditions -55 °C (30min) ↔ 125 °C (30min) * cycle time : 10 times | MIL-STD 883G method 1010.7 |
| Humidity test | Temperature : 70 ± 2 °C Relative humidity : 90~95% Duration : 96 hours | MIL-STD 202F method 103B |
| Dry heat (Aging test) | Temperature : 125 ± 2 °C Duration : 168 hours | MIL-STD 883G method 1008.2 condition C |
| PCT test | Pressure: 2.06kg/cm ² (2.03*10 ⁵ pa) Temperature : 121 ± 2 °C Relative humidity : 100% Duration : 24 hours | EIAJED-4701-3 B-123A |



CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.