

Travelling Merchant: _____

DATASHEET

Standard: OS70504A-ACAN-48.00MHz

P/N: _____

Plot			The Label
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2014.06.26			

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Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	<i>Amway</i>	2008.07.10
1.1	Version Update	<i>Amway</i>	2014.06.26



1. Scope:

- 1.1 Description: SMD Crystal Oscillator
- 1.2 Center Frequency: 48.00MHz
- 1.3 Dimension & Drawing No: OS70504A-ACAN-48.00MHz

2. Construction:

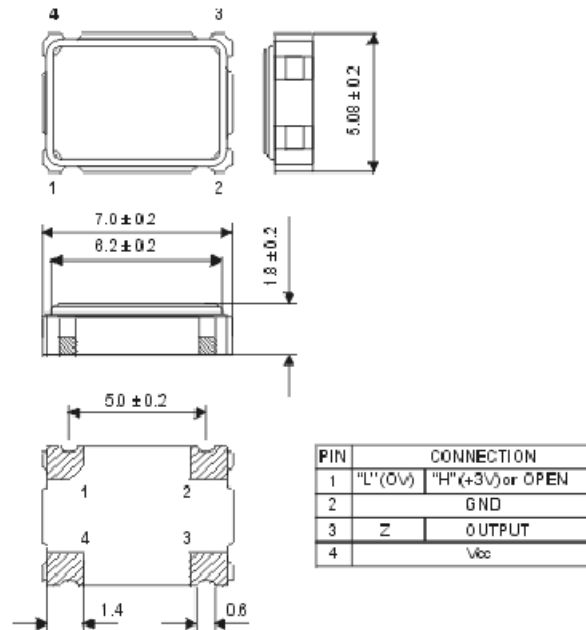
- 2.1 Oscillators series: SMD7×5 XO

3. Electrical Characteristics

- 3.1 Nominal Frequency: 48.00MHz
- 3.2 Frequency Tolerance: $\leq \pm 20\text{ppm}$ @ at 25°C $\pm 3^\circ\text{C}$
- 3.3 Aging: $\leq \pm 3\text{ppm}/\text{first year}$
- 3.4 Temperature Tolerance: $\leq \pm 40\text{ppm}$
- 3.5 Operating Temperature Range: -40°C to $+85^\circ\text{C}$
- 3.6 Storage Temperature Range: -55°C to $+125^\circ\text{C}$
- 3.7 Input Voltage: $+3.3\text{VDC} \pm 5\%$
- 3.8 Current Consumption: 22mA Max
- 3.9 Output Waveform: HCMOS
- 3.10 Rise/Fall Time: $\leq 6\text{ns}$
- 3.11 Output Voltage V_{OL} : $\leq 0.1V_{CC}$
 V_{OH} : $\geq 0.9V_{CC}$
- 3.12 Output Load: 15pF~20pF
- 3.13 Start up Time: $\leq 10\text{ms}$
- 3.14 Rating empty: 50% $\pm 10\%$
- 3.15 Symmetry: 50% $\pm 10\%$ at 1/2V_{CC} level
- 3.16 Enable/Disable time: 100ns Max
- 3.17 Reflow soldering cond.: 10 seconds Max at 240°C

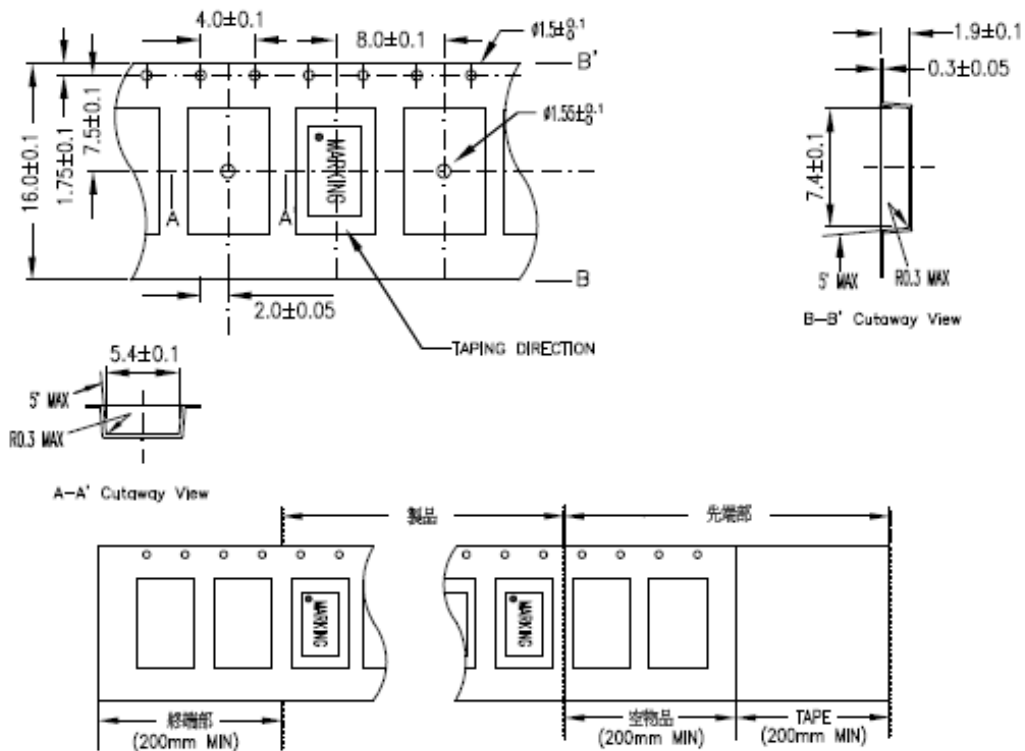


4. Figure



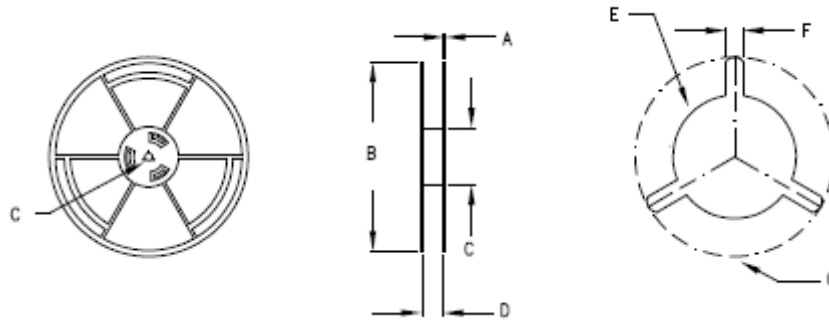
Unit : mm

5. Carrier Type





6. Reel

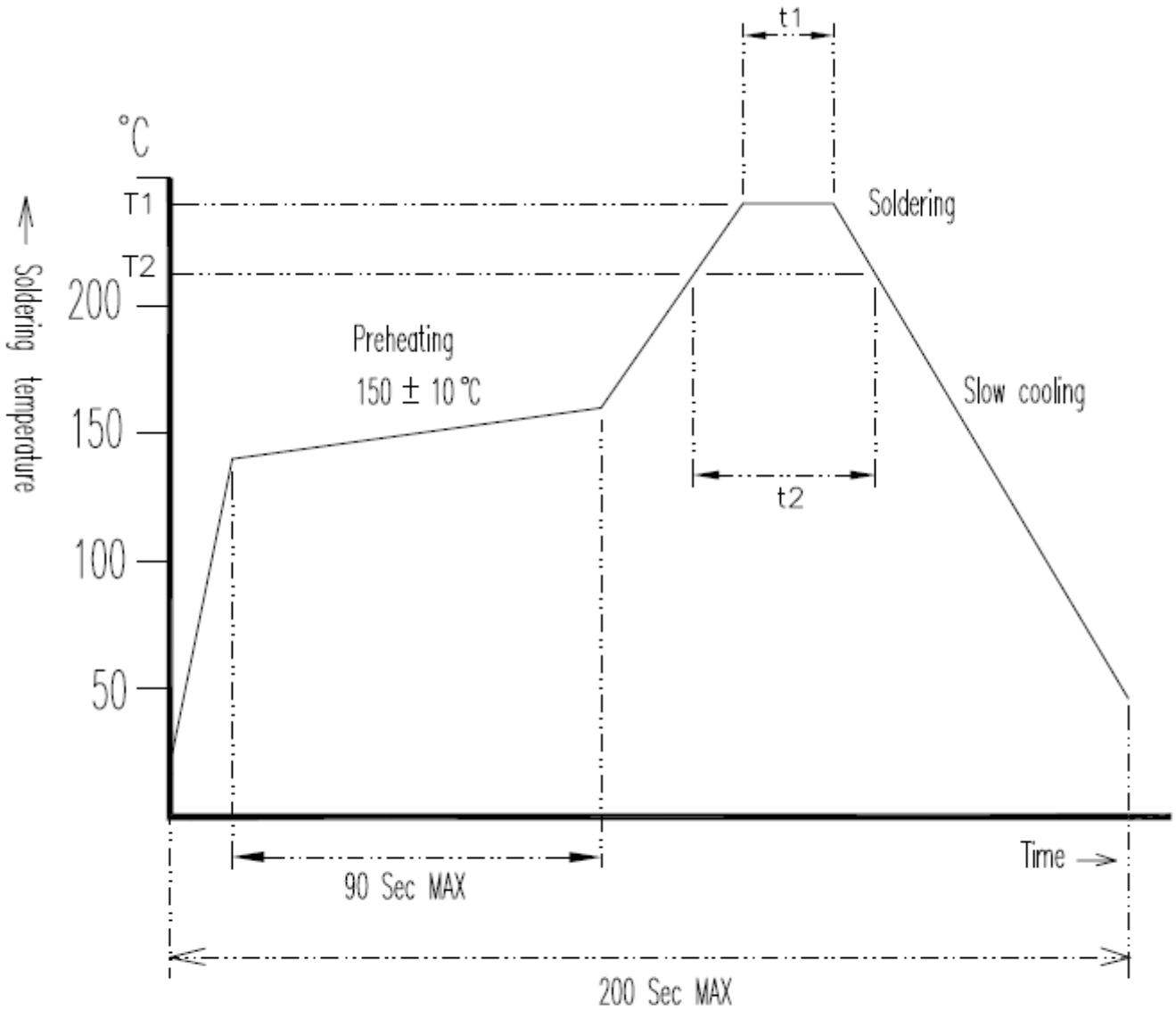


7. Environmental Performance

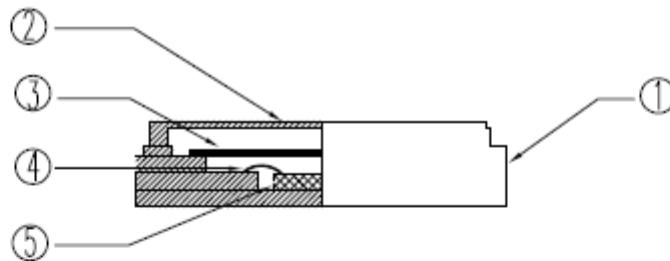
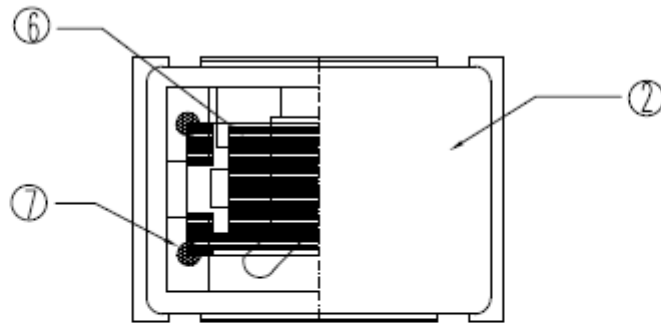
ITEM	CONDITION	SPECIFICATIONS						
1. Low temperature storage	Temp. : -40 ±3°C Time : 1000 ±2 H Measure after leaving a room for 1~2 H	Frequency stability ΔF : ± 5.0 ppm max						
2. High temperature storage	Temp. : +85 ±2°C Time : 1000 ±2 H Measure after leaving a room for 1~2 H							
3. Moisture resistance (High temperature and high humidity storage)	Temp. : +85 ±2°C Hum. : 90 ~ 95%RH Time : 1000 ±2 H Measure after leaving a room for 2 hours							
4. Shock	A half sine wave acceleration of 490 m/s ² peak amplitude of 7 to 11 ms duration 3 shock each plane.							
5. Damp heat cycle	Setup temperature and test time as below table : Cycle : 100 cycles Measure after leaving a room for 2 hour							
	<table border="1"> <thead> <tr> <th>Temperature</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>Operating Temp. (Low Temp.) +0/-6°C</td> <td>30 ± 3 min</td> </tr> <tr> <td>Operating Temp. (High Temp.) +4/-0°C</td> <td>30 ± 3 min</td> </tr> </tbody> </table>	Temperature	Time	Operating Temp. (Low Temp.) +0/-6°C	30 ± 3 min	Operating Temp. (High Temp.) +4/-0°C	30 ± 3 min	
Temperature	Time							
Operating Temp. (Low Temp.) +0/-6°C	30 ± 3 min							
Operating Temp. (High Temp.) +4/-0°C	30 ± 3 min							

8. Mechanical Performance

6. Solderability	Solder bath : +235°C ±5°C Time: 2 ±0.5 S	The dipping surface of the lead shall be at least 95% covered with a continuous new solder coating.
7. Resistance to soldering heat	Solder bath : +260°C ±5°C Time: 2 ±0.5 S Reflow chart as attach sheet. (2 Times)	<ul style="list-style-type: none"> • Shall Be free from any defectiveness on its surface. • Frequency stability ΔF : ±5.0 ppm max
8. Airtight	Solder bath : +260°C ±5°C Time: 2 ±0.5 S Reflow chart as attach sheet. (2 Times)	Less than 1x1E-8 mbarL/S.
9. Vibration	Frequency : 10 ~ 55Hz, amplitude (total excursion): 1.5mm±15%, 3 Direction (X, Y, Z) each 2 H.	Frequency stability ΔF : ±5.0 ppm max
10. Shock	Dropping form 75 cm high 2 times on hard wood.	Same as above.



Application \ Temperature/Time	T1/t1	T2/t2
Lead Free	260±5°C/10 Sec Max	225°C Min/60 Ses Max
Non Lead Free	240±5°C/10 Sec Max	200°C Min/40 Sec Max



PART NAME	MATERIAL	PART NAME	MATERIAL	PART NAME	MATERIAL
1	BASE	CERAMIC	4	WIRE	ALUMINIUM
2	CAP	CERAMIC	5	IC	Si
3	BLANK	QUARTZ	6	ELECTRODE	Cr+Ag
				7	ADHESIVES
					SILVER GLUE