

SPECIFICATION FOR APPROVAL

| | | | |
|----------|--------------------|-----------------|-----------------------------|
| ITEM P/N | YXMBO0624-4R7M-ANF | TEST INSTRUMENT | Zentech-3305 / Zentech502BC |
| PRODUCT | SMD Inductor | TEST FREQUENCY | 100 kHz / 1.0V |

CUSTOMER :**CUSTOMER P/N :****DESCRIPTION : SMD INDUCTOR****P/N : YXMBO0624-4R7M-****REVISION NO. : ANF****DATE : Version: 2.0****NOTES : 2017-8-16****STANDARD**

| DOCUMENTED | |
|------------|-------|
| APPROVED | Kevin |
| CHECKED | Peter |
| PREPARED | Ben |

CUSTOMER APPROVAL

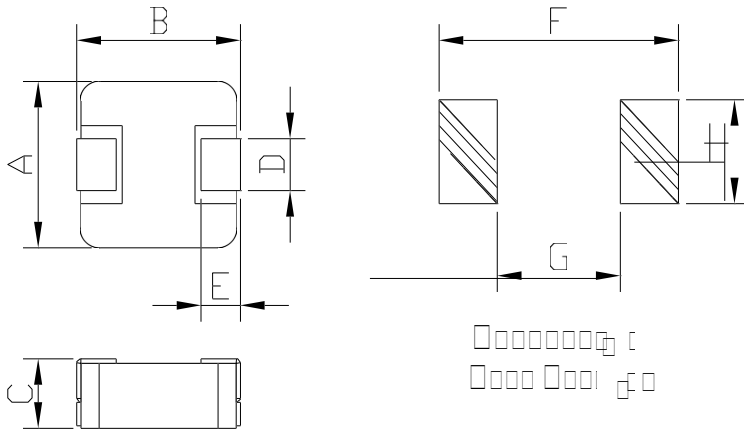
| | |
|---------------|--|
| | |
| company seals | |



COIL SPECIFICATION

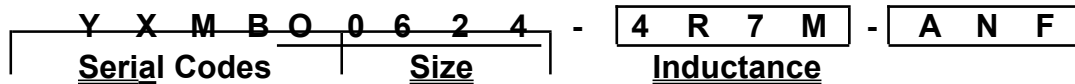
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PACKING DIMENSIONS (mm)



| 0624 4R7M | Dimensions |
|--------------|------------|
| A | 6.6 ± 0.3 |
| B | 7.1 ± 0.3 |
| C | 2.4 MAX |
| D | 3.0 ± 0.3 |
| E | 1.6 ± 0.5 |
| F | 7.4 Typ |
| G | 3.7 Typ |
| H | 3.5 Typ |

EXPLANATION OF PART NUMBERS



ELECTRICAL CHARACTERISTICS

| ITEM P/N | @ 26 °C Ambient Temperature | | | | DCR mΩ @ 25°C Typical | DCR mΩ @ 25°C MAX |
|----------------------------|-----------------------------|-----------|--|--|--------------------------------|----------------------------|
| | INDUCTANCE | | Typical Heat Rating DC Current (A) (I _{dc}) | Typical Saturation DC Current (A) (I _{sat}) | | |
| | Lo (μH) | TOLERANCE | | | | |
| YXMBO06 24-4R7M- ANF | 4.7 | ±20% | 4.5 | 9 | 45.2 | 63.0 |

- ⊙ All test Data is referenced to 25°C ambient
- ⊙ Typical Heat Rating DC Current would cause an approximately ΔT of 40°C
- ⊙ Typical Saturation DC Current would cause Lo to drop approximately 30%
- ⊙ Operation Temperature Range : -55°C ~ 125°C
- ⊙ The Part temperature (ambient + ΔT) should not exceed 125°C under worst case operating conditions.
- ⊙ Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions

all effect the part temperature. Part temperature should be verified in the end application.

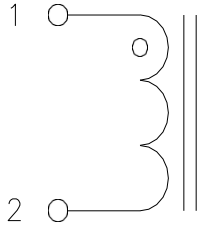


CHARACTERISTICS

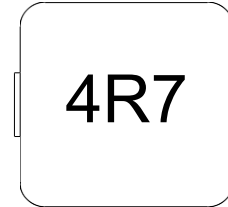
Version:2.0

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CONNECTIONS



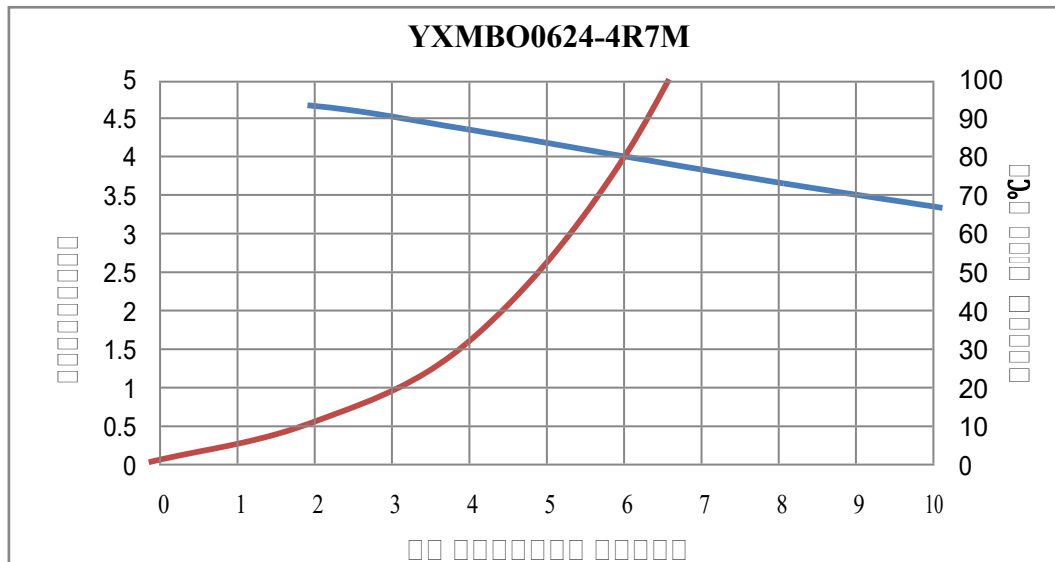
MARKING



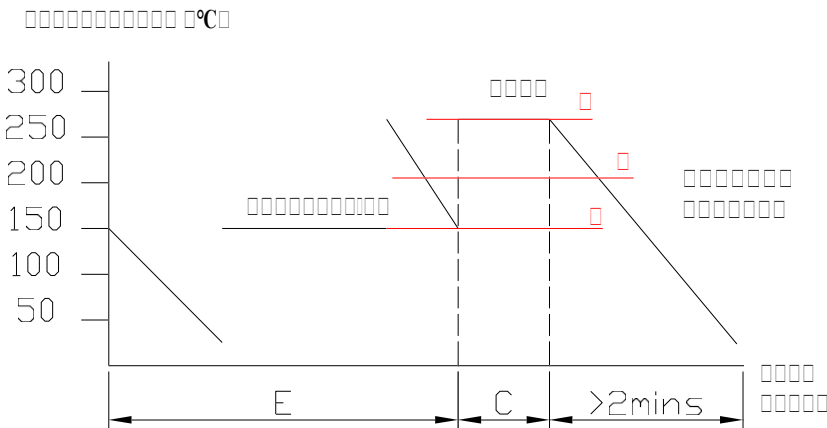
Inductor Contents ONE (1) Set(s) of Coil

© DC/AC Current Shall Be Introduced By Any One of Two Pads

PERFORMANCE CURVES



RECOMMENDED SOLDERING TEMP. GRAPH



| | |
|---|------------|
| A | 260°C |
| B | 230°C |
| C | 10 Sec |
| D | 150°C |
| E | 60~240 Sec |

CHARACTERISTICS

| | | | |
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MECHANICAL RELIABILITY

| TEST | Specification & Requirement | Method Used |
|---------------|--|---|
| Solderability | The surface of terminal/pin tested shall be covered with new solder by 95% | Solder heat proof: Preheating: 180 ±10°C 90 seconds Soldering: 255 ±5°C for 3 ±1 sec |
| Shock | Inductance change within ± 5% Without mechanical damage | Drop down with 981m/s2 (100G) shock Attitude upon a rubber block method shock testing machinem, 3 tests. |
| Vibration | Inductance change within ± 5% Without mechanical damage | Vibration frequency: 10Hz to 55Hz to 10Hz 60 seconds cycle Vibration time: 2 hours |

ENDURANCE RELIABILITY

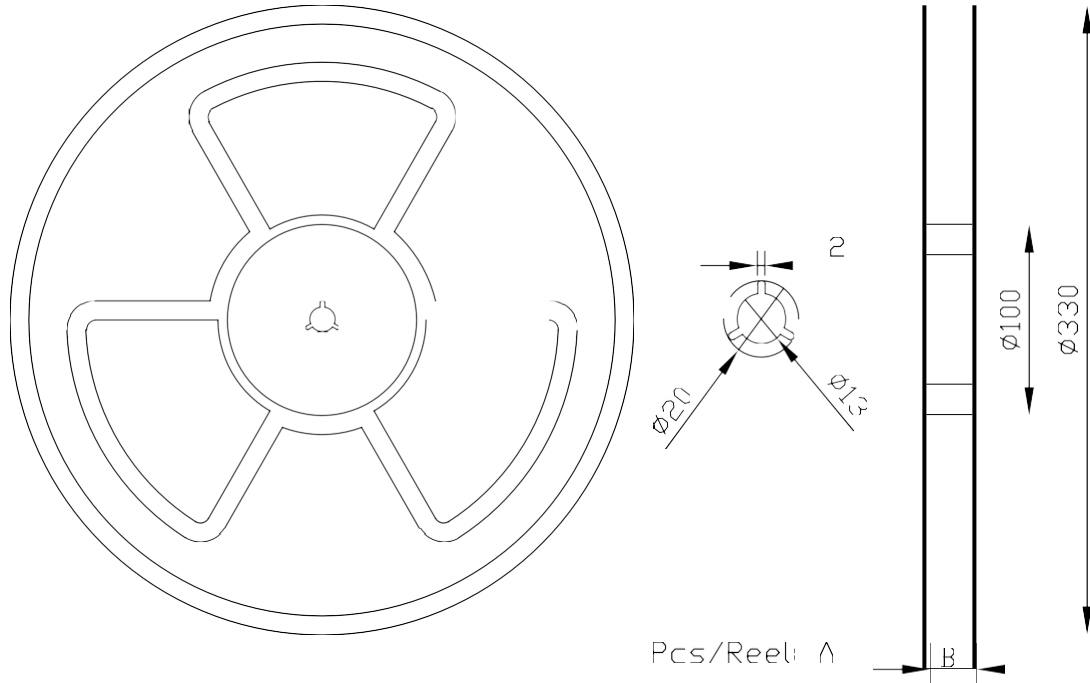
| TEST | Specification & Requirement | Method Used |
|---------------------|---|---|
| Thermal Shock | Inductance change within ± 5% Without mechanical damage | -25°C, (30 mins) -> room temp. (5 mins) -> 125°C, (30 mins) -> room temp. (5 mins) 100 cycles |
| Heat Resistance | Inductance change within ± 5% Without mechanical damage | Apply IDC current @ 85°C ambient Duration: 1000 hrs |
| Humidity Resistance | Inductance change within ± 5% Without mechanical damage | Apply IDC current @ 60°C ambient Humidity: 90~95% Duration: 1000 hrs |
| Low Temp. Storing | Inductance change within ± 5% Without mechanical damage | Storing Temp. -25 ±2 °C for total 1,000 +4/-0 hours |
| High Temp. Storing | Inductance change within ± 5% Without mechanical damage | Storing Temp. 125 ±2 °C for total 1,000 +4/-0 hours |



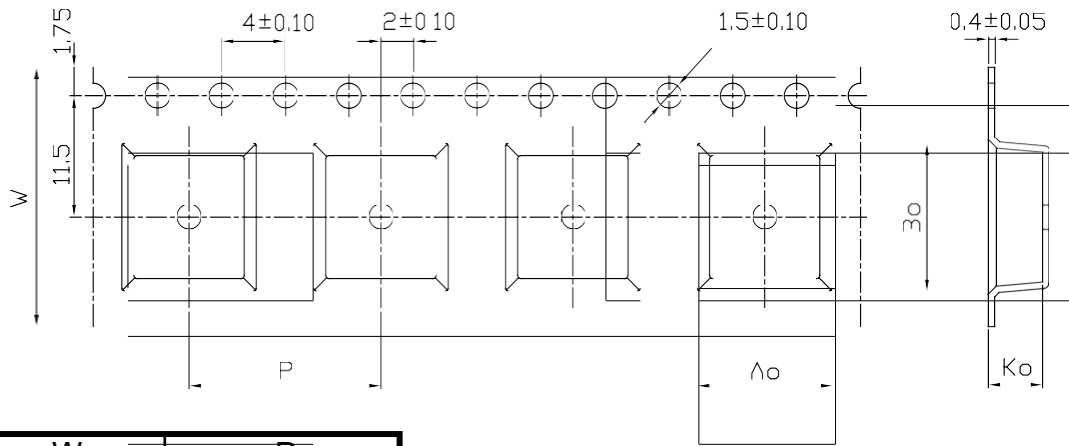
PACKING FOR SMD

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CARRIERTAPEING REEL & CARRIER MATERIALS (PAPER PLASTICS) UNIT : (mm)



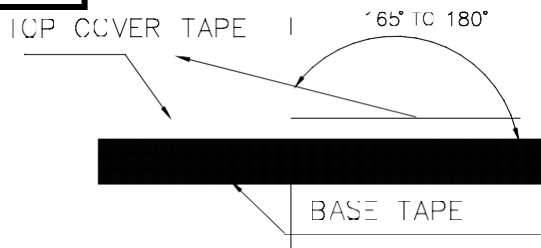
| A | B | Ao | Bo | Ko |
|------|----|-----------|-----------|-----------|
| 1000 | 17 | 6.9 ± 0.1 | 7.6 ± 0.1 | 3.0 ± 0.1 |



| W | P |
|----|----|
| 16 | 12 |

Typical Pulling Force:

10 grams



TESTING REPORT

| | | | |
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TEST DATA

| No. | SPEC | A | B | C | D | E | | | DCR | INDUCTANCE | |
|-----|------------------|------------------|----------------|------------------|------------------|-----------|--|-----------|-------------|-------------------|--|
| | (mm) | (mm) | (mm) | (mm) | (mm) | Max(mΩ) | | | L(0) ± 20% | 9 A | |
| | 6.6 ± 0.3 | 7.1 ± 0.3 | 2.4 MAX | 3.0 ± 0.3 | 1.6 ± 0.5 | | | 63 | 4.70 | ≧ 70% L(0) | |
| 1 | 6.57 | 7.18 | 2.32 | 2.93 | 1.57 | | | 52.24 | 4.68 | PASS | |
| 2 | 6.63 | 7.19 | 2.34 | 2.94 | 1.63 | | | 52.31 | 4.72 | PASS | |
| 3 | 6.62 | 7.21 | 2.31 | 2.93 | 1.62 | | | 53.12 | 4.66 | PASS | |
| 4 | 6.62 | 7.18 | 2.27 | 2.92 | 1.61 | | | 52.33 | 4.75 | PASS | |
| 5 | 6.64 | 7.19 | 2.29 | 2.94 | 1.59 | | | 52.28 | 4.67 | PASS | |
| 6 | 6.61 | 7.21 | 2.27 | 2.93 | 1.63 | | | 53.25 | 4.68 | PASS | |
| 7 | 6.57 | 7.18 | 2.32 | 2.94 | 1.61 | | | 52.28 | 4.70 | PASS | |
| 8 | 6.62 | 7.21 | 2.34 | 2.92 | 1.62 | | | 53.39 | 4.65 | PASS | |
| 9 | 6.57 | 7.18 | 2.31 | 2.94 | 1.65 | | | 52.18 | 4.62 | PASS | |
| 10 | 6.62 | 7.19 | 2.32 | 2.93 | 1.62 | | | 52.28 | 4.62 | PASS | |
| X | 6.61 | 7.19 | 2.31 | 2.93 | 1.62 | 0.00 | | 52.57 | 4.68 | | |
| R | 0.07 | 0.03 | 0.07 | 0.02 | 0.08 | 0.00 | | 1.21 | 0.13 | | |

© All test Data is referenced to 25°C ambient

