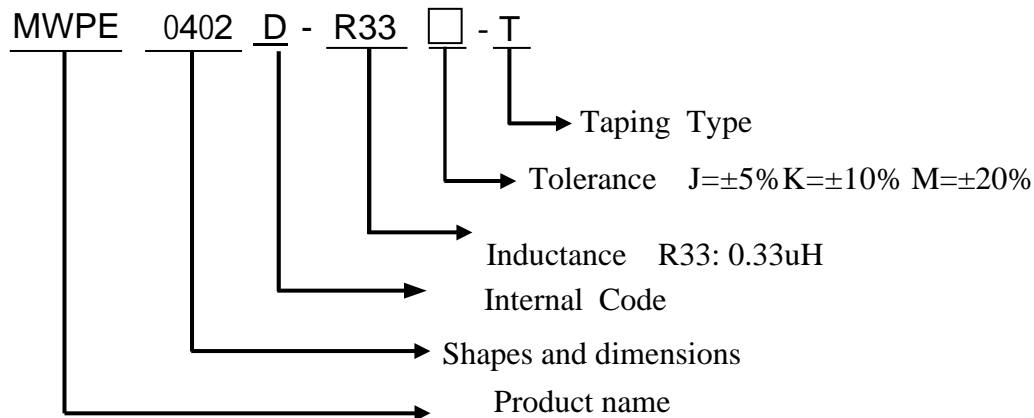


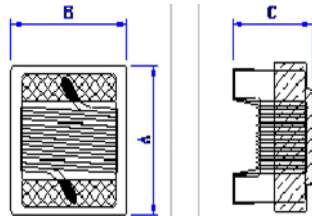
1. Scope

This specification applies wire wound power inductors MWPE0402D-R33J-T to be delivered to user.

2. Product Identification



3. Shapes and Dimensions



Unit: mm

| A | B | C |
|----------|----------|----------|
| 1.19 Max | 0.66 Max | 0.64 Max |

4. Electrical Characteristics

| Customer Part Number | Our Product Part Number | Inductance (uH)/MHz | Inductance Tolerance | SRF min. (MHz) | RDC max (Ω) | RMS max. (mA) |
|----------------------|-------------------------|---------------------|----------------------|----------------|---------------|---------------|
| | MWPE0402D-R33J-T | 0.33/7.9 | J | 820 | 0.56 | 350 |
| | | | K | | | |
| | | | M | | | |

5. Test Instruments

| ITEM | SPEC. RANGE | TEST FREQ. | TEST INSTRUMENTS |
|-----------|-------------|------------|------------------|
| L (μH) | 0.33±5% | 7.9MHz | HP4286A |
| DCR (Ω) | 0.56MAX | | 502BC |
| Irms (mA) | 350MAX | | VR116+VR7210 |
| SRF (MHz) | 820 MIN | | E5071C ENA |

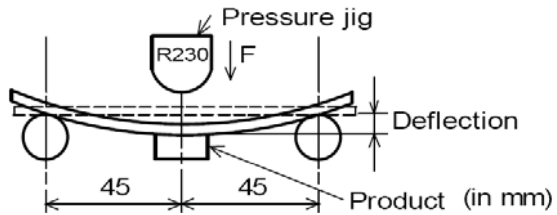
- a. Storage temp.: -40°C ~ +85°C, R.H.: 30% ~ 70%, Operating temp.: -40°C ~ +85°C
- b. Moisture sensitivity level (MSL) 2 (1 year floor life at < 30°C/85% relative humidity).
- c. Failures in time (FIT)/Mean Time Between Failures (MTBF) 38 per billion hours/26,315,789 hours, calculated per Telcordia SR-332.

6. TEST DATA FOR SAMPL

| TEST ITEM | L | DCR | A | B | C |
|--------------|---------------|--------------|---------|---------|---------|
| | (μ H) | (Ω) | (mm) | (mm) | (mm) |
| CON. | 7.9MHz/0.5V | At 25°C | | | |
| SPEC. | 0.33 \pm 5% | 0.56 MAX | 1.19MAX | 0.66MAX | 0.64MAX |
| 1 | 0.32 | 0.52 | 1.16 | 0.64 | 0.56 |
| 2 | 0.314 | 0.55 | 1.15 | 0.63 | 0.64 |
| 3 | 0.325 | 0.54 | 1.17 | 0.63 | 0.56 |
| 4 | 0.334 | 0.53 | 1.16 | 0.64 | 0.64 |
| 5 | 0.339 | 0.53 | 1.16 | 0.65 | 0.54 |
| 6 | 0.321 | 0.56 | 1.15 | 0.64 | 0.55 |
| 7 | 0.345 | 0.55 | 1.17 | 0.65 | 0.56 |
| 8 | 0.316 | 0.53 | 1.17 | 0.63 | 0.64 |
| 9 | 0.339 | 0.55 | 1.16 | 0.64 | 0.55 |
| 10 | 0.346 | 0.54 | 1.17 | 0.64 | 0.56 |
| X | 0.3299 | 0.54 | 1.162 | 0.639 | 0.58 |
| R | 0.032 | 0.04 | 0.02 | 0.02 | 0.1 |

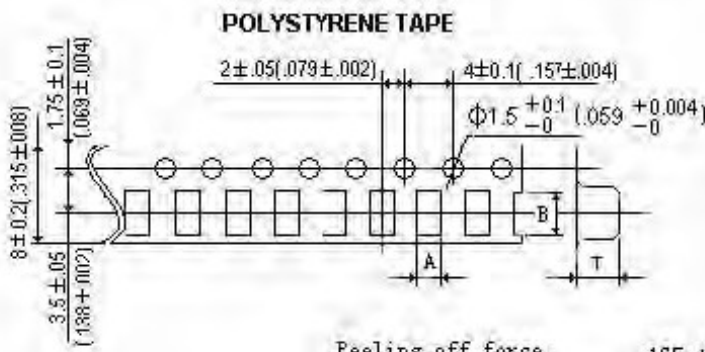
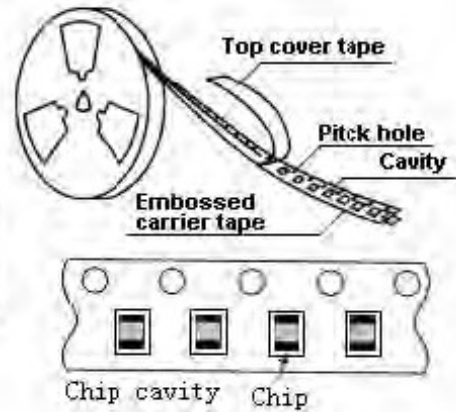
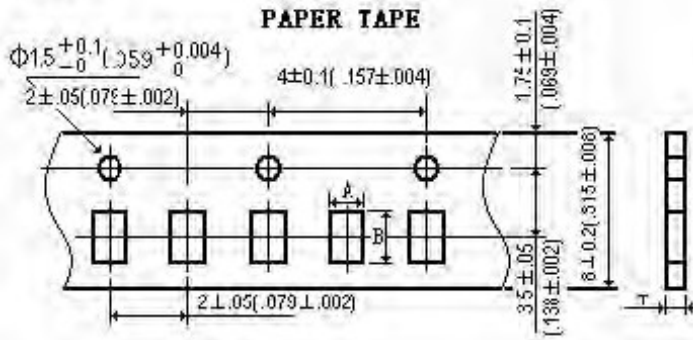
7. Reliability Test

| TEST ITEM | SPECIFICATION | TEST CONDITION |
|------------------------------|--|--|
| Rating current | According to product specifications | Current sources:33010D |
| Inductance | According to product specifications | Test Frequency:0.252~250MHz Test Equipment:HP4291A ,HP4286A ,HP4287A HP4284A Test Fixture:16193Aor16334A |
| RDC | According to product specifications | Test Equipment:HP4263B |
| SRF | According to product specifications | Test Equipment:HP4291A Test Fixture:16193A |
| Solderability | The metalized area must have more then 90%of solder coverage | Soldering Temp:230±5℃ Dipping time:5±1S |
| Resistance to soldering heat | No evidence of mechanical damage, The mealized arer must have more then 75% of solder coverage . Inductance change less than ±5% Q change less than ±10% . | Soldering Temp:260±5℃ Dipping time:10±1S |
| Thermal Shock | No evidence of mechanical damage,Inductance change less than±5%, Q change less than±10% | A cycle contain: Step 1: -40℃ ,30Min Step 2: 85℃ , 30Min Cycle Times:10 |

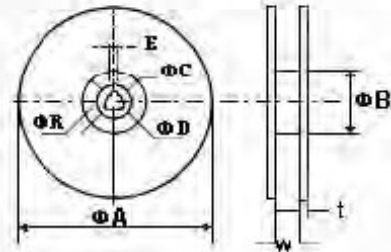
| TEST ITEM | SPECIFICATION | TEST CONDITION |
|--------------------------|---|---|
| High Temperature Storage | No evidence of mechanical damage, Inductance change less than $\pm 5\%$, Q change less than $\pm 10\%$ | Test Temperature: $125\pm 2^{\circ}\text{C}$ (Ceramic core) $85\pm 2^{\circ}\text{C}$ (Ferrite core) Test Time: 96 ± 2 Hours |
| Low Temperature Storage | No evidence of mechanical damage, Inductance change less than $\pm 5\%$, Q change less than $\pm 10\%$ | Test Temperature: $-40\pm 2^{\circ}\text{C}$ Test Time: 96 ± 2 Hours |
| Moisture Resistance | No evidence of mechanical damage, Inductance change less than $\pm 5\%$, Q change less than $\pm 10\%$ | Test Temperature: $50\pm 2^{\circ}\text{C}$ Test Time:100Hours relative humidity:90~95% |
| Vibration | No evidence of mechanical damage, Inductance change less than $\pm 5\%$, Q change less than $\pm 10\%$ | Amplitude:1.5mm X Y、Z each direction for 1Hour and 45min Frequency range:10~55~10Hz(min) |
| Component Adhesion | No evidence of mechanical damage , No evidence of peel off or broken , keep continuity of Winding | Force:2Kg Test Time: 5 ± 1 sec |
| Resistance to bend | No evidence of mechanical damage | Camber:20mm Test Board:Glass-Epoxy board Thickness:8mm  Product (in mm) |
| Life | No evidence of mechanical damage, Inductance change less than $\pm 5\%$,Q change less than $\pm 10\%$ | Test Temperature: $85\pm 2^{\circ}\text{C}$ Test Time:1000Hours with rating current |

8. Packaging

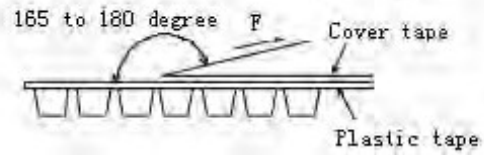
Tape



Reel Dimensions



Peeling off force
Full strength
0402~1210:20g~80g
Speed of peeling off:
300mm/min±10%



| | A | B | T |
|---------|------|------|------|
| 膠帶 0805 | 1.85 | 2.40 | 1.45 |

| unit | ΦA | ΦB | ΦC | ΦD | E | W | t | R |
|------|-----|----|----|----|---|-----|---|---|
| mm | 178 | 60 | 13 | 21 | 2 | 8.4 | 2 | 1 |

包装数量 (PACKAGING QUANTITY)

| | |
|----|------|
| 规格 | 0402 |
| 數量 | 3000 |

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