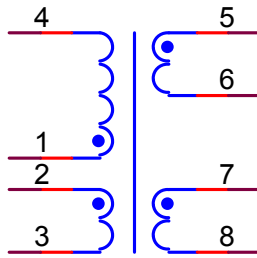


For Order Samples

Transformer ADDM.671331.248

S. Godina 2009-12-24



Core Information

| | |
|------------------------------------------------------------------------|---------------------------------------------|
| Core Type, Material and Gapped Effective Inductance, nH/t ² | RM6S/I-3C94-A160 (Ferroxcube) or Equivalent |
| Bobbin Reference | CSV5-RM6S-1S-8P (Ferroxcube) or Equivalent |
| MOUNTING PARTS | CLI/P-RM6/ I (2 pcs.) |

Bobbin Information

| | |
|--------------------------|--------------|
| Bobbin Orientation | Vertical SMD |
| Number of Primary pins | 4 |
| Number of Secondary pins | 4 |

Primary Winding

| Parameter | Section 1 |
|------------------------|--------------|
| Number of Turns | 90 |
| Wire Size, mm | 0.14 |
| Start Pin(s) | 1 |
| Termination Pin(s) | 4 |
| Primary Inductance, uH | 1300 +/- 10% |

Bias Winding

| Parameter | Section 1 |
|------------------------|------------|
| Number of Turns | 15 |
| Wire Size, mm | 2x0.14 |
| Start Pin(s) | 2 |
| Termination Pin(s) | 3 |
| Primary Inductance, uH | 36 +/- 10% |

Secondary Windings

| Parameter | Output 1 | Output 2 |
|--------------------------|------------|------------|
| Spec Voltage, V | 12 | 12 |
| Spec Current, A | 0.25 | 0.25 |
| Number of Turns | 15 | 15 |
| Wire Size, mm | 0.25 | 0.25 |
| Start Pin(s) | 5 | 7 |
| Termination Pin(s) | 6 | 8 |
| Secondary Inductance, uH | 36 +/- 10% | 36 +/- 10% |

Primary Winding

Start on pin(s) 1 using item [5] at the starts leads and wind 90 turns of item [7] in 3 layers from left to right. At the end of 1st layer, add 1 layers of tape, item [4], for insulation, continue to wind the next layer from right to left. At the end of 2nd layer, add 1 layers of tape, item [4], for insulation, continue to wind the next layer from left to right. Finish winding on pin(s) 4 using item [5] at the finish leads. Add 2 layers of tape, item [4], for insulation.

Первичную обмотку укладывать виток к витку. В первый слой – 35-37 витков, затем один слой изоляции, затем второй слой провода и изоляции, остаток провода в третий слой (все слои - виток к витку). После этого – два слоя изоляции.

Bias Winding

Start on pins 2 and wind 15 turns (x 2 filar) of item [7]. Finish on pin 3. Add 2 layers of tape, item [4], for insulation.

Дополнительную обмотку укладывать в два провода виток к витку без перекрещивания проводов. Затем два слоя изоляции.

Secondary Windings

Start on pins 5 and 7 and wind 15 turns (x 2 filar simultaneous) of item [8]. Finish on pin 6 and 8 corresponding. Add 2 layers of tape, item [4], for insulation.

Вторичные обмотки уложить одновременно виток к витку в два слоя без изоляции. Сверху закрыть двумя слоями изоляции.

Core Assembly

Assemble (voidless) and secure core halves Item [1] and clip Item [3].

Собрать сердечники без перекосов и скрепить скобами.

Varnish

Dip varnish uniformly in item [6].

Materials

| Item | Description |
|------|-------------------------------------------------------------|
| [1] | Core: RM6S/I-3C94-A250 (Ferroxcube) or Equivalent |
| [2] | Bobbin: CSVS-RM6S-1S-8P (Ferroxcube) or Equivalent |
| [3] | Clips (2 pcs.): CLI/P-RM6/ I |
| [4] | Barrier Tape: Polyester film 8 mm wide |
| [5] | Teflon Tubing # 22 |
| [6] | Varnish |
| [7] | Magnet Wire: 35 AWG (0.14 mm), Solderable Double Coated |
| [8] | Magnet Wire: 30 AVG (0.25 mm), FURUKAWA TEX-E or Equivalent |

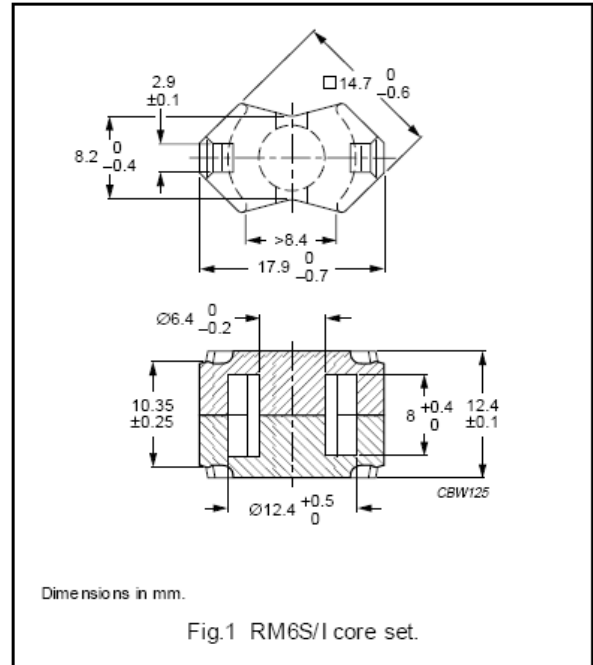
Electrical Test Specifications

| Parameter | Condition | Spec |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------|--------------|
| Nominal Primary 1-4 Inductance, uH | Measured at 1 V pk-pk, typical switching frequency, between pin 1 to pin 4, with all other Windings open. | 1300 +/- 130 |
| Bias 2-3 Inductance, uH | Measured at 1 V pk-pk, typical switching frequency, between pin 9 to pin 10, with all other Windings open. | 36 +/- 4 |
| Secondary 5-6 and 7-8 Inductance, uH | Measured at 1 V pk-pk, typical switching frequency, between pin 5 to pin 6, with all other Windings open. | 36 +/- 4 |
| Checking the direction of the windings, uH | Measured at 1 V pk-pk, typical switching frequency, between consecutively united winding 1-4_2-3_5-6_7-8 | 2920 +/- 400 |
| Turns Ratio II / I | 20 kHz, 1 V | 0.167 +/- 4% |
| Turns Ratio III / I | 20 kHz, 1 V | 0.167 +/- 4% |
| Electrical Strength, VAC | 50 Hz 1 minute, from pins 1–4 to pins 2–3 | 1500 |
| | 50 Hz 1 minute, from pins 1–4 & 2-3 to pins 5-6. | 4000 |
| | 50 Hz 1 minute, from pins 5-6 to pins 7-8. | 4000 |

CORE SETS

Effective core parameters

| SYMBOL | PARAMETER | VALUE | UNIT |
|---------------|------------------|-------|------------------|
| $\Sigma(l/A)$ | core factor (C1) | 0.784 | mm ⁻¹ |
| V_e | effective volume | 1090 | mm ³ |
| l_e | effective length | 29.2 | mm |
| A_e | effective area | 37.0 | mm ² |
| A_{min} | minimum area | 31.2 | mm ² |
| m | mass of set | ≈ 5.5 | g |

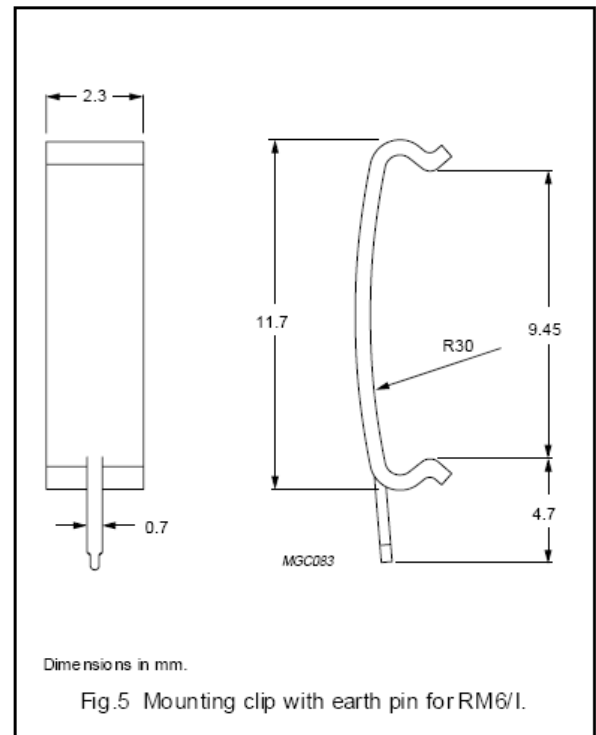


| | | | | |
|------|-----------|--------|--------|-------------------|
| 3C94 | 63 ±3% | ≈ 40 | ≈ 1080 | RM6 S/I-3C94-A63 |
| | 100 ±3% | ≈ 63 | ≈ 600 | RM6 S/I-3C94-A100 |
| | 160 ±3% | ≈ 100 | ≈ 340 | RM6 S/I-3C94-A160 |
| | 250 ±3% | ≈ 157 | ≈ 200 | RM6 S/I-3C94-A250 |
| | 315 ±3% | ≈ 198 | ≈ 150 | RM6 S/I-3C94-A315 |
| | 400 ±3% | ≈ 251 | ≈ 110 | RM6 S/I-3C94-A400 |
| | 630 ±5% | ≈ 396 | ≈ 65 | RM6 S/I-3C94-A630 |
| | 2600 ±25% | ≈ 1630 | ≈ 0 | RM6 S/I-3C94 |

MOUNTING PARTS

General data

| ITEM | SPECIFICATION |
|----------------|-------------------------------------------------------------|
| Clamping force | ≈10 N |
| Clip material | stainless steel (CrNi) |
| Clip plating | tin-lead alloy (SnPb), transition to lead-free (Sn) ongoing |
| Solderability | "IEC 60068-2-20", Part 2, Test Ta, method 1 |
| Type number | CLI/P-RM6/I |

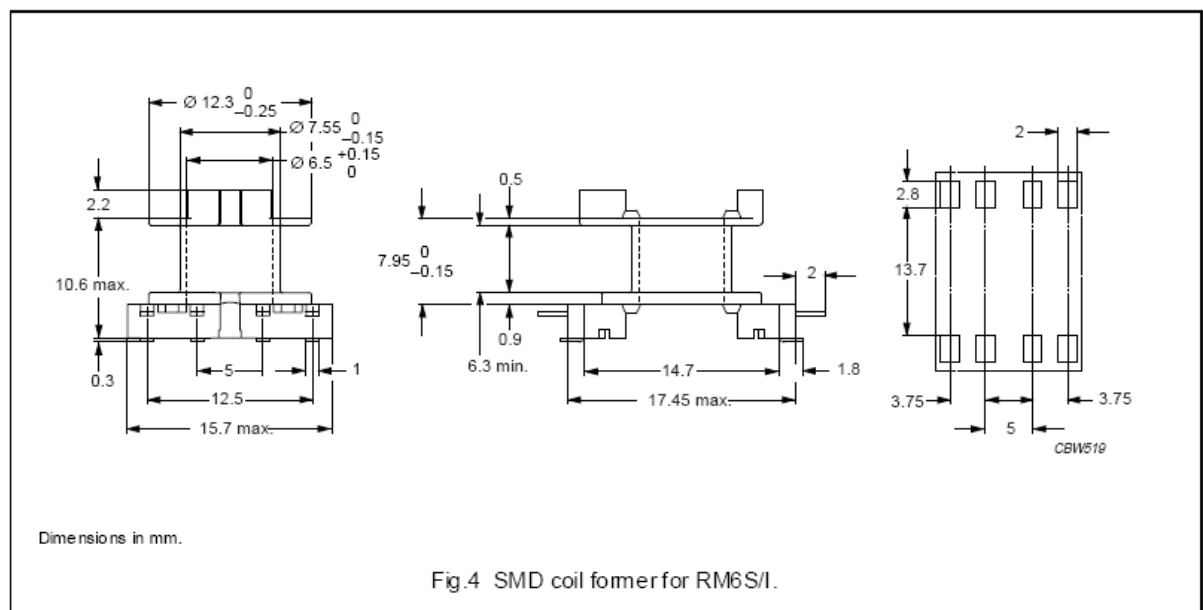


RM cores and accessories

RM6S/I

General data SMD coil former

| PARAMETER | SPECIFICATION |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------|
| Coil former material | phenolformaldehyde (PF), glass-reinforced, flame retardant in accordance with "UL 94 V-0"; UL file number E41429 (M) |
| Solder pad material | copper-tin alloy (CuSn), tin-lead alloy (SnPb) plated, transition to lead-free (Sn) ongoing |
| Maximum operating temperature | 155 °C, "IEC 60085", class F |
| Resistance to soldering heat | "IEC 60 068-2-20", Part 2, Test Tb, method 1B, 350 °C, 3.5 s |
| Solderability | "IEC 60 068-2-20", Part 2, Test Ta, method 1 |



Winding data for RM6S/I coil former (SMD)

| NUMBER OF SECTIONS | NUMBER OF SOLDER PADS | WINDING AREA (mm ²) | WINDING WIDTH (mm) | AVERAGE LENGTH OF TURN (mm) | TYPE NUMBER |
|--------------------|-----------------------|---------------------------------|--------------------|-----------------------------|-------------------|
| 1 | 8 | 14.2 | 6.3 | 31.4 | CSVS-RM6S-1S-8P-B |