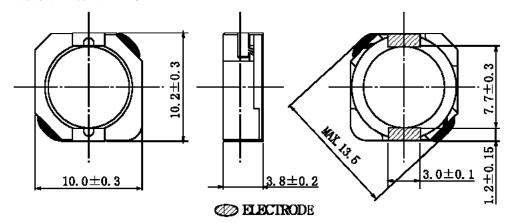
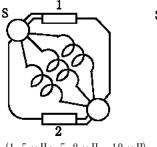
| SPECII | FICATION | CUSTOMER: | | | |
|-------------|----------|-----------|-------------|----------|-------|
| SUMIDA TYPE | CDRH104R | PART NO. | REF. TO THE | ATTACHED | SHEET |

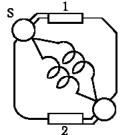
1.DIMENSION (UNIT mm)

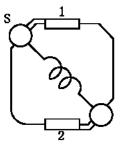


* DIMENSION WITHOUT TOLERANCE ARE APPROX.









STAMP - DATE CODE

220

DIRECTLY STAMP
FIX THE POSITION

3. STAMP (EXP.)

(1. 5 μ H \sim 5. 2 μ H, 10 μ H) (7. 0 μ H \sim 33 μ H) (47 μ H \sim 330 μ H) "S" SHOWS WINDING BEGINNING.

4. NOTE

- * RECOMMENDED REFLOW CONDITIONS ARE BASED ON S-074-5003.
- * ENCLOSING CONDITION OF COILS.



* CARRIER TAPE PACKING SPECIFICATION IN DETAIL. (S-074-5092)

| 4 th, 5 | Sep., | 1999 | SUMIDA CODE | 4 7 6 8 | | | |
|-----------------|--------------|-------------------------|-------------|---------|------|------------|-----|
| снк. | СНК. | DRG. | | | DRG. | NO. | 2/5 |
| CHEN WEIMING | HE GUOGAO | TIAN YONGXIANG YC | | | | S-074-6082 | } |

GENERAL CHARACTERISTICS

TYPE

CDRH104R

A

1. OPERATING TEMPERATURE RANGE: -40° C \sim +100°C (CONTAIN GENERATE HEAT OF COIL)

2. STORAGE TEMPERATURE RANGE : -40℃ ~ +100℃

3. EXTERNAL APPEARANCE : NO EXTERNAL DEFECTS CAN BE FOUND IN THE VISUAL INSPECTION.

4. TLECTRODE STRENGTH : NO TLECTRODE DETACHMENT SHOULD BE FOUND WHEN

THE DEVICE IS PUSHED IN TWO DIRECTIONS OF X AND Y WITH THE FORCE OF 5. ON FOR 10 ± 5 SECONDS AFTER SOLDERING BETWEEN COPPER

PLATE AND THE TLECTRODES. (REFER TO FIGURE AT RIGHT)

5. HEAT ENDURANCE TEST : REFER TO S-074-5002.

6. TEMPERATURE FEATURE : INDUCTANCE COEFFICIENT IS ($0 \sim 2000$) $\times 10^{-6}$ /°C ($-40 \sim +100$ °C)

7. HUMIDITY TEST : INDUCTANCE DEVIATION IS WITHIN $\pm 5.0\%$ AND NO STRUCTURE AND ELECTRIC

DEFECTS CAN BE FOUND AFTER 96 HOURS TEST UNDER THE CONDITION OF RELATIVE HUMIDITY OF $90{\sim}95\%$ AND TEMPERATURE OF $40\pm2\%$, AND 1 HOUR STORAGE UNDER ROOM AMBIENT CONDITIONS AFTER THE DEVICE IS WIPED WITH

DRY CLOTH.

8. VIBRATION TEST : INDUCTANCE DEVIATION IS WITHIN $\pm 2.0\%$ AFTER 1 HOUR SWEEPING VIBRATION

IN EACH THREE DIRECTIONS, NAMELY, FORWARD AND BACKWARD, UP AND DOWN, RIGHT AND LEFT. THE FREQUENCY IS $10\sim55\sim10$ Hz AND THE AMPLITUDE OF

1 MINUTE CYCLE IS 1.5mm PP.

9. SHOCK TEST : INDUCTANCE DEVIATION IS WITHIN $\pm 2.0\%$ AFTER THE TEST WITH GOM-BLOCK

SHOCK TESTING MACHINE. ONCE IN EACH OF THE THREE PERPENDICULAR AXIS

DIRECTIONS. THE SHOCK ACCELERATION IS 981m/s².

10. SOLDER ABILITY : ELECTRODES ARE IMMERSED IN ROSIN (JIS-K-5902) WITH METHANOL

(JIS-K-1501) (25%) FOR 5 SECONDS. THEN DIPPED IN $230\pm5\%$ MOLTEN SOLDER (JIS-Z- 3282 H63A) FOR 2 ± 0 . 5 SECONDS. 95% OF THE AREAS OF THE IMMERSED

ELECTRODES SHOULD BE COVERD BY SOLDER COATING.

11. HIGH TEMPERATURE : INDUCTANCE DEVIATION IS WITHIN ±3.0% AND NO STRUCTURE AND ELECTRIC

LOAD LIFE TEST DEFECTS CAN BE FOUND AFTER 500 ± 12 HOURS TEST UNDER THE CONDITION

OF TEMPERATURE OF 100±2°C AND RATED CURRENT LOADED AND 1 HOUR STORAGE

UNDER ROOM AMBIENT CONDITIONS AFTER WHICH DEVICE IS TESTED WITHIN

THE NEXT 2 HOURS.

12. LOW TEMPERATURE : INDUCTANCE DEVIATION IS WITHIN $\pm 3.0\%$ AND NO STRUCTURE AND ELECTRIC

DEFECTS CAN BE FOUND AFTER 500 ± 12 HOURS TEST UNDER THE CONDITION OF TEMPERATURE OF $-40\pm3\%$ AND RATED CURRENT LOADED AND 1 HOUR STORAGE

UNDER ROOM AMBIENT CONDITIONS AFTER WHICH DEVICE IS TESTED WITHIN

THE NEXT 2 HOURS.

4th, Sep., 1999

LOAD LIFE TEST

| СНК. | СНК. | DRG. | Γ | DRG. | NO. | ; |
|-----------------|--------------|-------------------|---|------|------------|---|
| CHEN WEIMING | HE GUOGAO | TIAN YONGXIANG YC | | | S-074-6082 |) |

SPECIFICATION

CDRH104R

ELECTRICAL CHARACTERISTICS

| NO. | NO. PART NO. | | INDUCTANCE [WITHIN] ※1 | D. C. R. (Ω) [MAX.] (TYP.) (at 20℃) | RATED CUR **5 | SUMIDA CODE | |
|-----|----------------|-----|------------------------------|---|------------------|----------------|-------|
| | | | ~ 1 | ×2 | ※ 3 | ※ 4 | CODE |
| 1 | CDRH1Ø4R-1R5NC | 1R5 | 1. $5\mu\mathrm{H}~\pm~30\%$ | 8. 1m (6. 0m) | 10. 0 | 6. 50 | -0031 |
| 2 | CDRH1Ø4R-2R5NC | 2R5 | 2. $5\mu\mathrm{H}~\pm~30\%$ | 10.5m (7.8m) | 7. 50 | 6. 10 | -0018 |
| 3 | CDRH1Ø4R-3R8NC | 3R8 | $3.~8\mu\mathrm{H}~\pm~30\%$ | 13.0m (9.6m) | 6. 00 | 5. 50 | -0019 |
| 4 | CDRH1Ø4R-5R2NC | 5R2 | 5. $2\mu\mathrm{H}~\pm~30\%$ | 22m (16m) | 5. 50 | 5. 40 | -0020 |
| 5 | CDRH1Ø4R-7RØNC | 7R0 | 7. $0\mu{\rm H}~\pm~30\%$ | 27m (20m) | 4. 80 | 4. 50 | -0021 |
| 6 | CDRH1Ø4R-1ØØNC | 100 | $10\mu\mathrm{H}~\pm~30\%$ | 35m (26m) | 4. 40 | 3. 80 | -0022 |
| 7 | CDRH1Ø4R-15ØNC | 150 | $15\mu\mathrm{H}~\pm~30\%$ | 50m (37m) | 3. 60 | 3. 10 | -0023 |
| 8 | CDRH1Ø4R-22ØNC | 220 | $22\mu\mathrm{H}~\pm~30\%$ | 73m (54m) | 2. 90 | 2. 50 | -0024 |
| 9 | CDRH1Ø4R-33ØNC | 330 | $33\mu\mathrm{H}~\pm~30\%$ | 93m (69m) | 2. 30 | 2. 20 | -0025 |
| 1 0 | CDRH1Ø4R-47ØNC | 470 | $47\mu\mathrm{H}~\pm~30\%$ | 128m (95m) | 2. 10 | 1. 90 | -0026 |
| 1 1 | CDRH1Ø4R-68ØNC | 680 | $68\mu\mathrm{H}~\pm~30\%$ | 213m (158m) | 1. 50 | 1. 42 | -0027 |
| 1 2 | CDRH1Ø4R-1Ø1NC | 101 | $100\mu\mathrm{H}~\pm~30\%$ | 304m (225m) | 1. 35 | 1. 25 | -0028 |
| 1 3 | CDRH1Ø4R-151NC | 151 | $150\mu\mathrm{H}~\pm~30\%$ | 506m (375m) | 1. 15 | 0.85 | -0017 |
| 1 4 | CDRH1Ø4R-221NC | 221 | $220\mu\mathrm{H}~\pm~30\%$ | 756m (560m) | 0. 92 | 0. 70 | -0029 |
| 1 5 | CDRH1Ø4R-331NC | 331 | $330\mu\mathrm{H}~\pm~30\%$ | 1.09 (810m) | 0. 70 | 0. 52 | -0030 |

- **※1 MEASURING FREQUENCY at 100kHz 1V**
- **※**2 () TYPICAL VALUE.
- *3 THE CURRENT WHEN THE INDUCTANCE DECREASES TO 65% OF INITIAL VALUE.
- **※**4 THE CURRENT WHEN THE TEMPERATURE OF COIL IS INCREASED BY 30℃.
- **5 THE RATED CURRENT INDICATES THE CURRENT WHEN THE INDUCTANCE DECREASES TO 65% OF INITIAL VALUE OR DC CURRENT WHEN THE TEMPERATURE OF COIL IS INCREASED BY 30℃. THE SMALLER ONE IS DEFINED AS RATED CURRENT.

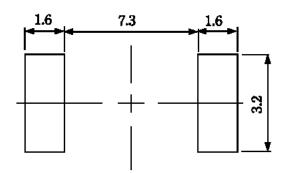
4th, Sep., 1999

| СНК. | снк. | DRG. | DRG. | DI | . NO. | | 4 |
|-----------------|--------------|-------------------------|------|----|-------|--------|---|
| CHEN WEIMING | HE GUOGAO | TIAN YONGXIANG YC | | | S-074 | 1-6082 | 2 |

TYPE

CDRH104R

DIMENSION RECOMMENDED (mm)



4th, Sep., 1999

| СНК. | снк. | DRG. | DRG. | NO. | 5/5 |
|-----------------|--------------|-----------------------------|------|------------|-----|
| CHEN WEIMING | HE GUOGAO | T I AN YONGX I ANG YC | | S-074-6082 |) |