

| Product Specification | Part |
|----------------------------|--------------------|
| RF Power Chip Terminations | CQT10S Chip Series |

1. CQT10S Chip Terminations

This type is designed to RF Termination

2. Dimensional specifications are detailed per the following draft of Fig.1

RF Power: 1W to 20W

Resistance: 50 ohm

Frequency: DC to 6GHz

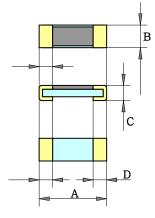


Fig 1

2-1. Part Designations (Unit: mm)

| Part | A | В | С | D |
|---------|------|------|------|------|
| CQT10SA | 5.00 | 2.00 | 0.80 | 1.00 |
| CQT10SB | 7.00 | 2.00 | 0.80 | 1.00 |
| CQT10SC | 5.00 | 2.50 | 0.55 | 0.60 |
| CQT10SD | 3.20 | 1.60 | 0.45 | 0.45 |
| CQT10SE | 2.00 | 1.20 | 0.35 | 0.35 |

2-2. Ordering Information

| Part No. | RF Power | Frequency | TCR | Resistance | Tolerance | Package |
|---------------|----------|------------|--------------|------------|-------------|-------------|
| CQT10SA-500NI | 20W | DC to 3GHz | C (50ppm/°C) | 50 ohm | +/- 1 to 5% | 1000 (Reel) |
| CQT10SB-500NI | 20W | DC to 3GHz | C (50ppm/°C) | 50 ohm | +/- 1 to 5% | 1000 (Reel) |
| CQT10SC-500NI | 5W | DC to 4GHz | C (50ppm/°C) | 50 ohm | +/- 1 to 5% | 4000 (Reel) |
| CQT10SD-500NI | 2W | DC to 6GHz | C (50ppm/°C) | 50 ohm | +/- 1 to 5% | 5000 (Reel) |
| CQT10SE-500NI | 1W | DC to 6GHz | C (50ppm/°C) | 50 ohm | +/- 1 to 5% | 5000 (Reel) |

3. Note

Additional Process Code Terminal conductor, solder plated Ni

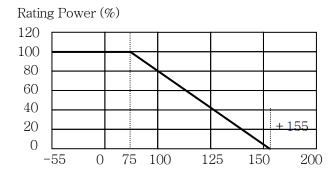


4. Rating.

4-1. Rating Power with Heat Sink (Fig.2)

Resistors have power rating based on full load operation at terminals temperature from

- 55C to + 155C. Operating power shall be derated as figure 2 in operating at excess of
- + 155C of terminal temperature.



Terminal Temperature (C) Fig.2

4-2. General Electrical Specifications

| Items | Specification | Condition |
|----------------------------------|------------------------|----------------|
| Part | CQT10S Chip Series | |
| Rating RF power | 1W tO 20W | 4-1 |
| Frequency | DC to 6GHz | |
| Resistance Values | 50 ohm | Standard |
| Temp. Coefficient of Resistance. | +/-200ppm/C | -55C to + 155C |
| Tolerance of Resistance | +/- 1%, +/- 3%, +/- 5% | Standard |
| Equivalent Parallel Capacitance | 0.5 pF Max. | |

Note: Other resistance values and tolerances available upon request.



5. Electrical and mechanical Specifications

| Items | Specifications | Test Conditions |
|-----------------------|------------------------|---------------------------------------|
| Operation Temp. Range | -55- + 155 C | |
| Storage Temp. Range | -55 - + 155 C | |
| Withstanding Voltage | 1,500 Volt | 60 seconds. |
| Load Life | +/-(1.0 %+0.05 ohm) | 25C, 90min.ON, 30min.OFF, 1000hours. |
| Humidity | +/- (1.0 %+ 0.05 ohm) | 40C, 90-95%RH, DC 0.1W, 1000hours. |
| Temperature Cycle | +/- (0.25 %+ 0.05 ohm) | -55C, 30 min., +155C 30min., 5cycles. |
| Soldering Heat | +/- (0.25 %+ 0.05 ohm) | 350+/-5C, 3seconds, |
| Solderability | Over 3/4 of surface | 230+/-5C, 3seconds. |
| Insulation Resistance | Over 1000 M ohm | Between terminals and resistor body. |
| Vibration | +/- (0.25 %+ 0.05 ohm) | |

6. Quality Assurance

Cqtel shall be assure to the CiTEL customers of the resistors quality. Receiving fault report from the customer, analyzing the cause of fault and reporting of QA to the customer shall be obligation of Cqtel, because brand of the resistor and CQT10S Chip series is right of CiTEL.

7. Country of Origin

The resistors are produced at main factory of CiTEL Co., Ltd.