

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 : 1/4W to 10W  
Resistance : 50 ohm  
Frequency : DC to 12GHz

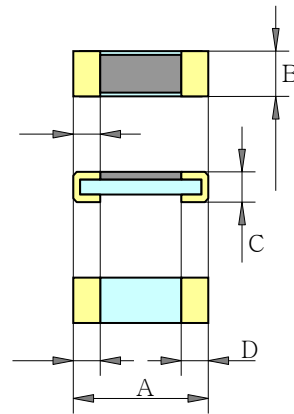


Fig 1

2-1. Part Designations (Unit : mm)

Part	A	B	C	D
CQT10SA	5.00	2.00	0.80	1.00
CQT10SB	6.40	3.20	0.55	0.55
CQT10SC	5.00	2.50	0.55	0.55
CQT10SD	3.20	1.60	0.45	0.45
CQT10SE	2.00	1.20	0.40	0.40
CQT10SF	1.60	0.80	0.30	0.30

2-2. Ordering Information

Part No.	RF Power	Frequency	TCR	Resistance	Tolerance	Package
CQT20SA-500NI	10W	DC to 3GHz	±200ppm/°C	50 ohm	±3%	1000
CQT20SB-500NI	3W	DC to 4GHz	±200ppm/°C	50 ohm	±1%, 5%	4000
CQT20SC-500NI	2W	DC to 4GHz	±200ppm/°C	50 ohm	±1%, 5%	4000
CQT20SD-500NI	1W	DC to 6GHz	±200ppm/°C	50 ohm	±1%, 5%	5000
CQT20SE-500NI	1/2W	DC to 6GHz	±200ppm/°C	50 ohm	±1%, 5%	5000
CQT20SF-500NI	1/4W	DC to 12GHz	±200ppm/°C	50 ohm	±1%, 5%	10000

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

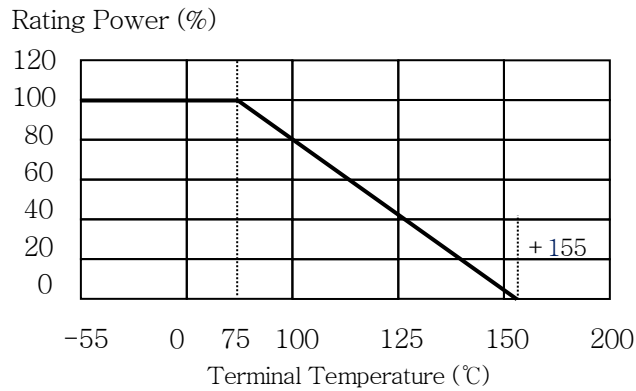


Fig.2

##### 4-2. General Electrical Specifications

Items	Specification	Condition
Part	CQT10S Chip Series	
Rating RF power	1/4W to 10W	4-1
Frequency	DC to 12GHz	
Resistance Values	50 ohm	Standard
Temp. Coefficient of Resistance.	±200ppm/°C	-55 to + 155°C
Tolerance of Resistance	±1%, 3%, 5%	
Equivalent Parallel Capacitance	1.0 pF Max.	

Note: Other resistance values and tolerances available upon request.

#### 5. Electrical and mechanical Specifications

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

#### 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 KOREA main factory of CiTEL Co., Ltd.