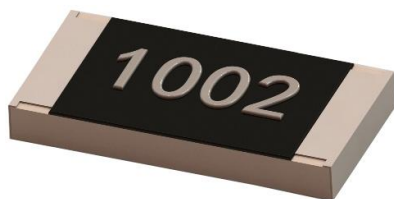


# Thick Film High Power Chip Resistor – BCTH Series



## Features

- RoHS, Halogen Free and REACH Compliance
- High component and equipment reliability
- PCB space saving
- None forbidden-materials used in products/production

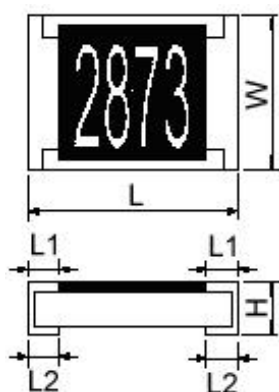
## Applications

- All general purpose application

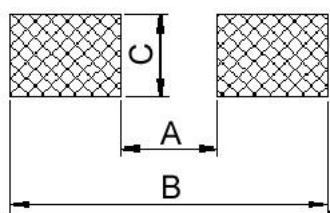
## Product Identification

B	CTH	00	0805	-	10R2	F	TP
Grade	Product Series	Control Code	Dimensions Code	Special Code	Nominal Resistance	Tolerance	Taping Code
	High Power		0201		10R2=10.2Ω	B=±0.1%	TH (10000Pcs) : 0201~0402
	Thick Film		0402		1002=10KΩ	D=±0.5%	TP (5000Pcs) : 0603~1210
	Chip Resistors		0603			F=±1%	TE (4000Pcs) : 2010~2512
			0805			J=±5%	
			1206				
			1210				
			2010				
			2512				

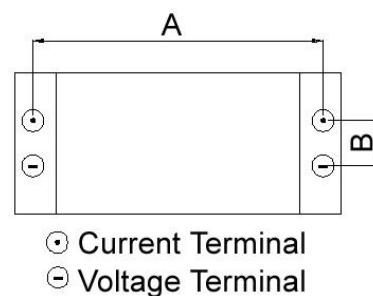
## Configuration and Dimensions



## Recommended Pattern



## Measurement Point



Dimensions in mm

Type	Configuration and Dimensions					Recommended Pattern			Measurement Point	
	L	W	H	L1	L2	A	B	C	A	B
BCTH000201	0.60±0.03	0.30±0.03	0.23±0.03	0.15±0.05	0.15±0.05	0.3	1.0	0.4	0.44±0.05	0.22±0.05
BCTH000402	1.00±0.10	0.50±0.05	0.30±0.05	0.20±0.10	0.25±0.10	0.5	1.5	0.6	0.80±0.05	0.24±0.05
BCTH000603	1.55±0.10	0.80±0.10	0.45±0.10	0.30±0.15	0.30±0.15	0.8	2.1	0.9	1.35±0.05	0.35±0.05
BCTH000805	2.00±0.10	1.25±0.10	0.50±0.10	0.35±0.20	0.35±0.15	1.2	3.0	1.3	1.80±0.05	0.35±0.05
BCTH001206	3.05±0.10	1.55±0.10	0.50±0.10	0.45±0.20	0.35±0.15	2.2	4.2	1.6	2.90±0.05	0.35±0.05
BCTH001210	3.05±0.10	2.55±0.10	0.55±0.10	0.50±0.20	0.50±0.20	2.2	4.2	2.8	2.90±0.05	0.35±0.05
BCTH002010	4.95±0.10	2.45±0.10	0.70±0.10	0.65±0.20	0.60±0.20	3.5	6.1	2.8	4.50±0.05	1.15±0.05
BCTH002512	6.40±0.20	3.20±0.20	0.70±0.10	0.60±0.20	1.25±0.20	3.8	8.0	3.5	5.90±0.05	1.60±0.05

# Thick Film High Power Chip Resistor – BCTH Series

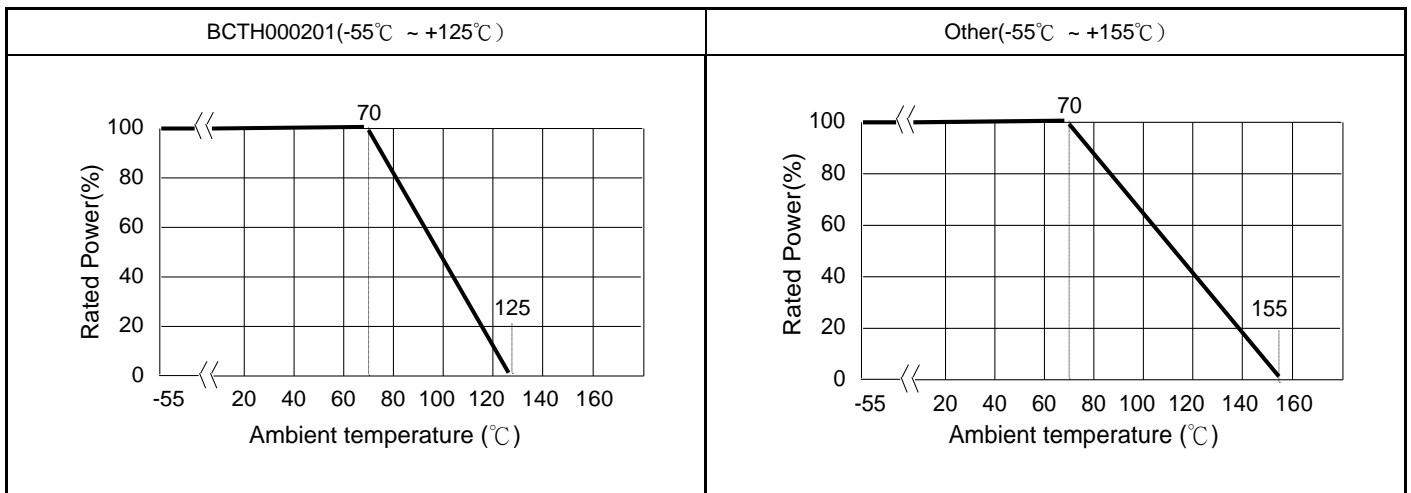
## Electrical Characteristics Resistance Range:

Type	Rated Power at 70°C (W)	Working Voltage (V) Max.	Overload Voltage (V) Max.	T.C.R (ppm/°C)	Resistance Range (Ω)				JUMPER Rated Current (A)		JUMPER Resistance Value (mΩ) Max.	
					±0.1%	±0.5%	±1%	±5%				
					E-24、E-96	E-24、E-96	E-24、E-96	E-24	±5%	±1%	±5%	±1%
BCTH000201	1/16	25	50	-200+400	-	1 ≤ R < 10	1 ≤ R < 10	1 ≤ R < 10	-	-	-	-
				±200	-	10 ≤ R ≤ 10M	10 ≤ R ≤ 10M	10 ≤ R ≤ 10M				
BCTH000402	1/8	50	100	±100	100 ≤ R ≤ 1M	10 ≤ R ≤ 1M	10 ≤ R ≤ 10M	10 ≤ R ≤ 20M	1.5	2	50	20
				±200	-	-	1 ≤ R < 10	1 ≤ R < 10				
BCTH000603	1/5	75	150	±100	100 ≤ R ≤ 1M	10 ≤ R ≤ 1M	10 ≤ R ≤ 20M	10 ≤ R ≤ 20M	1.5	2.5	50	20
				±200	-	1 ≤ R < 10	1 ≤ R < 10	1 ≤ R < 10				
BCTH000805	1/4	150	300	±100	100 ≤ R ≤ 1M	10 ≤ R ≤ 10M	10 ≤ R ≤ 10M	10 ≤ R ≤ 20M	2.5	3.5	50	20
				±200	-	1 ≤ R < 10	1 ≤ R < 10	1 ≤ R < 10				
BCTH001206	1/2	200	400	±100	10 ≤ R ≤ 1M	10 ≤ R ≤ 10M	10 ≤ R ≤ 10M	10 ≤ R ≤ 20M	3	5	50	20
				±200	3 ≤ R < 10	1 ≤ R < 10	1 ≤ R < 10	1 ≤ R < 10				
BCTH001210	3/4	200	400	±100	100 ≤ R ≤ 1M	10 ≤ R ≤ 10M	10 ≤ R ≤ 10M	10 ≤ R ≤ 20M	4	6	50	20
				±200	-	-	1 ≤ R < 10	1 ≤ R < 10				
BCTH002010	1	200	400	±100	-	-	10 ≤ R ≤ 10M	10 ≤ R ≤ 10M	4.5	7	50	20
				±200	-	-	1 ≤ R < 10	1 ≤ R < 10				
BCTH002512	2	200	400	±100	-	-	10 ≤ R ≤ 10M	10 ≤ R ≤ 10M	6	10	50	20
				±200	-	-	1 ≤ R < 10	1 ≤ R < 10				
Operating Temperature Range				-55°C ~ +155°C (0201:-55°C ~ +125°C)								

Note: When ordering, please specify tolerance code. Tolerance: B=±0.1%, D=±0.5%, F=±1%, G=±2%, J=±5%

● Power Derating Curve: Operating Temperature Range: -55°C ~ +155°C or (0201:-55°C ~ +125°C)

For resistors operated in ambient temperatures 70°C, power rating shall be derated in accordance with the curve below:



● Rating Current: The resistor shall have a DC continuous working current or a rms. AC continuous working current at commercial-line frequency and wave form corresponding to the power rating, as determined from the following:

Remark: E: Rated voltage.(V) , P: Rating Power.(W), R: Nominal Resistance.(Ω)

$$E = \sqrt{R \times P}$$

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