DataSheet No:C16009

Version:V8

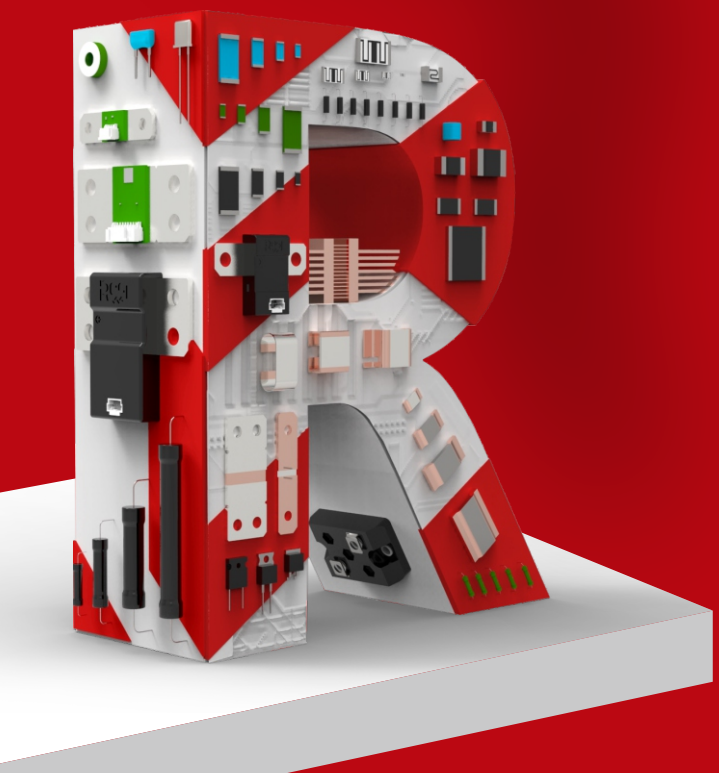
Date:2025/10/29

睿思

PCSR2512

High-precision, low TCR molded alloy current sensing resistor

Resistance	5mΩ～100mΩ
Tolerance	±0.1%
TCR	±10ppm/℃, ±15ppm/℃
Rated Current	3A~20A



Applications

Automotive Electronics

Construction Machinery

Energy Storage Equipment

Test Measurement

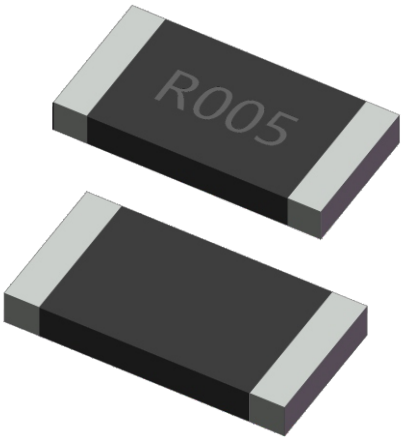
Electrical Equipment

Better Solution for Sustainable High End Manufacturing

PCSR2512

High-precision, low-temperature-coefficient molded alloy current sensing resistor

High precision of ±0.1%, Low TCR of ±10ppm
High Stability and High Reliability



Introduction

The high-precision, low-temperature-coefficient molded alloy shunt resistor uses a resistor alloy independently developed by C&B Electronics, which undergoes precision processing. Continuous welding is achieved through specialized electron beam welding equipment independently designed and manufactured by C&B Electronics. The resistor is then formed through a precise stamping process. By perfectly combining the capabilities of alloy consistency control, precision processing, process management, and precision welding, the product can achieve a target accuracy of up to ±0.1% after fine resistance adjustment. Finally, the product is encapsulated and formed through a precise molding process.

The standard resistance values of this product series range from 5 mΩ to 100 mΩ, with a temperature coefficient within ±10 ppm/°C over the range of -55 °C to 125 °C. Through precise control of the resistance alloy composition, meticulous electron beam welding processes, and consistent management of subsequent manufacturing steps, the product's thermoelectric voltage is significantly reduced, while its long-term stability is greatly enhanced.

The core materials, key equipment, and essential processes of this product series are fully self-controlled, ensuring stable quality and timely delivery. If the standard specifications do not meet your requirements, please contact our sales personnel for consultation. C&B is committed to providing users with the best precision resistor solutions to meet the needs of customers in testing and measurement, electrical equipment, medical devices, precision power supplies, automotive electronics, chemical composition, and other applications.

RoHS AEC-Q200 3D

Electrical Parameters

Size	Resistance	Rated Power (+70°C)	Max. Operating Current	Operating Temperature	TCR ppm/°C(+20°CRef)	Tolerance %
PCSR2512	5mΩ≤R≤10mΩ	2W	14A~20A	-55°C~+170°C	±10(-55°C～+125°C) ±15(-55°C～+125°C)	±0.1 ±0.5 ±1.0 ±5.0
PCSR2512	10mΩ<R≤100mΩ	1W	3A~8A	-55°C~+170°C	±10(-55°C～+125°C) ±15(-55°C～+125°C)	±0.1 ±0.5 ±1.0 ±5.0

Application

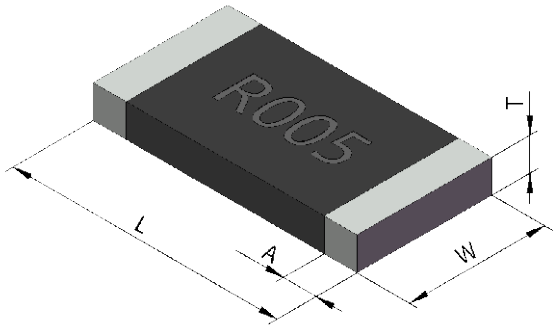
This series of current-sensing resistors is suitable for AC and DC, high- and low-frequency sampling circuits.

C&B Electronics Shenzhen CO., LTD.| www.resistor.today | resi@cbeureka.com | Tel:0755-82899519

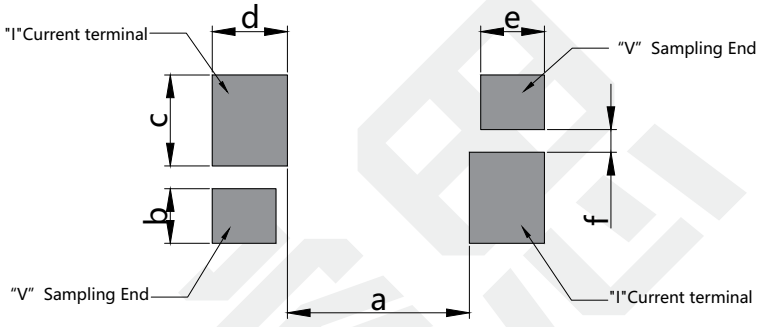
Dimensions

Unit:mm

Standard Drawing Size



Land Pattern



Failure to follow the recommended pad design may severely affect the temperature coefficient measurement results and current detection accuracy!

Resistance	L	W	A	T	a	b
5mΩ~100mΩ	6.4±0.2	3.2±0.2	0.8±0.2	0.8±0.1	4.0	1.2

c	d	e	f	Packaging	Quantity	Weight
2.0	1.65	1.4	0.5	Carrier Tape	4000pcs	0.07±0.02g

Selection Table

Selection Example:PCSR2512BR005M9 (PCSR 2512 ±0.1% 5mΩ ±15ppm/°C Clearly marked)

P	C	S	R	2	5	1	2	B	R	0	0	5	M	9

Series	Size	Tolerance	Resistance[1-2]	TCR	Identifier
PCSR	2512	B=±0.1% D=±0.5% F=±1.0% J=±5.0%	R005=5mΩ R010=10mΩ R100=100mΩ	N=±10ppm/°C M=±15ppm/°C	9=Clearly marked 6=Unmarked

1、There are cases where the resistance value exceeds four-digit notation. For example, 49.9 mΩ is represented as R0499, and 49.99 mΩ is represented as R04999, and so on.

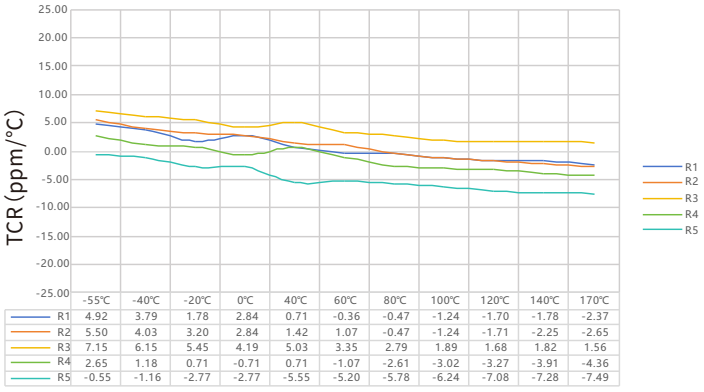
2、For higher or lower resistance values, higher accuracy, higher power, lower temperature coefficient, or larger sizes, please contact us for confirmation.

Performance

Test	Test Method	Standards	Typical	Max.
High Temperature Storage	1000h@+170°C, unpowered	AEC-Q200 TEST 3 MIL-STD-202 Method 108	△R≤±0.1%	△R≤±0.3%
Thermal Shock	-55°C, 15min~ambient temperature<20s~+155°C, 15min, 1000 cycles	MIL-STD-202 Method 107	△R≤±0.1%	△R≤±0.3%
Bias Humidity	+85°C, 85%RH, powered 10% rated power for 1000h	AEC-Q200 TEST 7 MIL-STD-202 Method 103	△R≤±0.05%	△R≤±0.2%
Load Life	2000h @ +70°C, rated power, 90min on, 30min off +70°C refers to terminal temperature	AEC-Q200 TEST 8 MIL-STD-202 Method 108	△R≤±0.2%	△R≤±0.75%
Resistance to Solvent	Immerse in solvent for 3 min and wipe 10 times. Three cycles of three solvents. Dry at ambient temperature after cleaning	AEC-Q200 TEST 12 MIL-STD-202 Method 215	Clear marking. No visible damage	
Mechanical Shock	Half Sine Wave, peak acceleration 100g's, pulse duration 6ms, 3 times in each of six directions, on three different axes	AEC-Q200 TEST 13 MIL-STD-202 Method 213	△R≤±0.02%	△R≤±0.05%
Vibration	10-2KHz, 5g's, 20min/cycle, 12 cycles in each directions of X Y Z	AEC-Q200 TEST 14 MIL-STD-202 Method 204	△R≤±0.02%	△R≤±0.05%
Resistance to Solder Heat	Keep at +260°C on the heating platform for 10 seconds.	AEC-Q200 TEST 15 MIL-STD-202 Method 210	△R≤±0.05%	△R≤±0.1%
Solderability	+245°C tin bath for 3s	AEC-Q200 TEST 18 IEC 60115-1 4.17	No visible damage. 95% minimum coverage	
TCR	Measurement points: -55°C and +125°C, reference point: +20°C	AEC-Q200 TEST 19 IEC 60115-1 4.8	Refer to the measured curve. The maximum temperature coefficient is within ±200ppm/°C for 0.1mΩ and within ±100ppm/°C for resistances from 0.2 to 1.0mΩ.	
Board Flex	2mm. Duration: 60s.	AEC-Q200 TEST 21 AEC-Q200-005	△R≤±0.1%	△R≤±0.5%
Short Time Overload	5x rated power, 5s	IEC 60115-1 4.13	△R≤±0.1%	△R≤±0.5%
Low Temperature Storage	-55°C for 96h, unpowered	IEC 60068-2-1	△R≤±0.1%	△R≤±0.5%
Moisture Resistance	Apply T=24 h/cycle, zero power, method 7a and 7b are not required	MIL-STD-202 Method 106	△R≤±0.02%	△R≤±0.05%

TCR-Measured Curve Chart

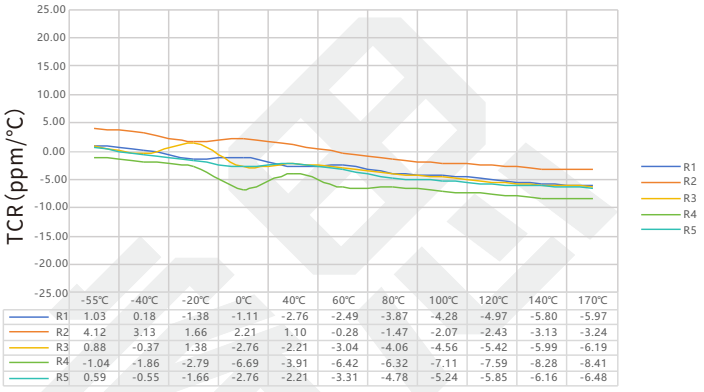
TCR Test Curve -PCSR2512 5.0mΩ



	-55℃	-40℃	-20℃	0℃	40℃	60℃	80℃	100℃	120℃	140℃	170℃
R1	4.92	3.79	1.78	2.84	0.71	-0.36	-0.47	-1.24	-1.70	-1.78	-2.37
R2	5.50	4.03	3.20	2.84	1.42	1.07	-0.47	-1.24	-1.71	-2.25	-2.65
R3	7.15	6.15	5.45	4.19	5.03	3.35	2.79	1.89	1.68	1.82	1.56
R4	2.65	1.18	0.71	-0.71	0.71	-1.07	-2.61	-3.02	-3.27	-3.91	-4.36
R5	-0.55	-1.16	-2.77	-2.77	-5.55	-5.20	-5.78	-6.24	-7.08	-7.28	-7.49

Temperature (°C)

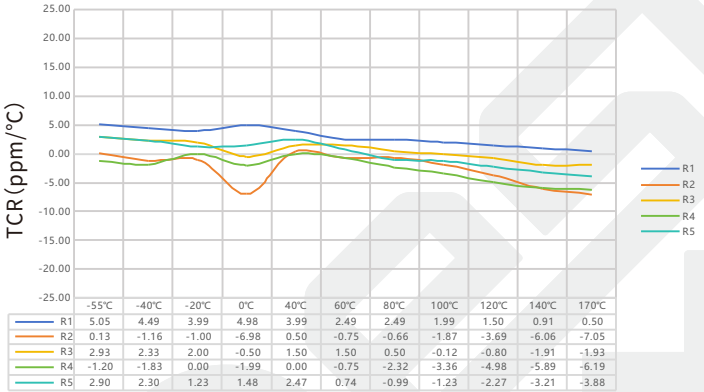
TCR Test Curve -PCSR2512 9.0mΩ



	-55℃	-40℃	-20℃	0℃	40℃	60℃	80℃	100℃	120℃	140℃	170℃
R1	1.03	0.18	-1.38	-1.11	-2.76	-2.49	-3.87	-4.28	-4.97	-5.80	-5.97
R2	4.12	3.13	1.66	2.21	1.10	-0.28	-1.47	-2.07	-2.43	-3.13	-3.24
R3	0.88	-0.37	1.38	-2.76	-2.21	-3.04	-4.06	-4.56	-5.42	-5.99	-6.19
R4	-1.04	-1.86	-2.79	-6.69	-3.91	-6.42	-6.32	-7.11	-7.59	-8.28	-8.41
R5	0.59	-0.55	-1.66	-2.76	-2.21	-3.31	-4.78	-5.24	-5.85	-6.16	-6.48

Temperature (°C)

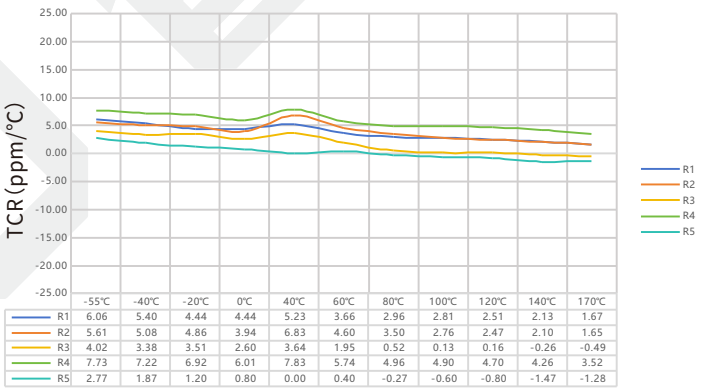
TCR Test Curve -PCSR2512 10mΩ



	-55℃	-40℃	-20℃	0℃	40℃	60℃	80℃	100℃	120℃	140℃	170℃
R1	5.05	4.49	3.99	4.98	3.99	2.49	2.49	1.99	1.50	0.91	0.50
R2	0.13	-1.16	-1.00	-6.98	0.50	-0.75	-0.66	-1.87	-3.69	-6.06	-7.05
R3	2.93	2.33	2.00	-0.50	1.50	1.50	0.50	-0.12	-0.80	-1.91	-1.93
R4	-1.20	-1.83	0.00	-1.99	0.00	-0.75	-2.32	-3.36	-4.98	-5.89	-6.19
R5	2.90	2.30	1.23	1.48	2.47	0.74	-0.99	-1.23	-2.27	-3.21	-3.88

Temperature (°C)

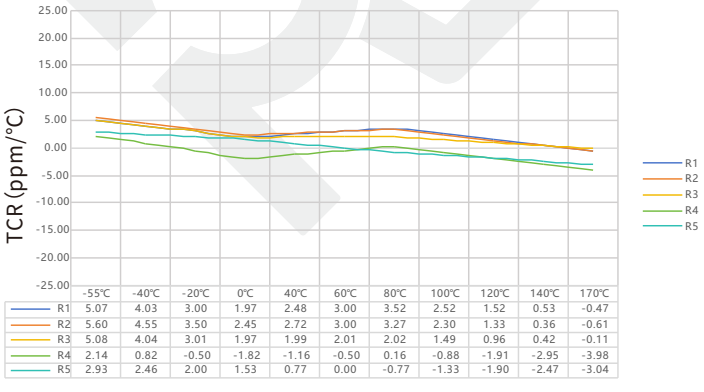
TCR Test Curve -PCSR2512 20mΩ



	-55℃	-40℃	-20℃	0℃	40℃	60℃	80℃	100℃	120℃	140℃	170℃
R1	6.06	5.40	4.44	4.44	5.23	3.66	2.96	2.81	2.51	2.13	1.67
R2	5.61	5.08	4.86	3.94	6.83	4.60	3.50	2.76	2.47	2.10	1.65
R3	4.02	3.38	3.51	2.60	3.64	1.95	0.52	0.13	0.16	-0.26	-0.49
R4	7.73	7.22	6.92	6.01	7.83	5.74	4.96	4.90	4.70	4.26	3.52
R5	2.77	1.87	1.20	0.80	0.00	0.40	-0.27	-0.60	-0.80	-1.47	-1.28

Temperature (°C)

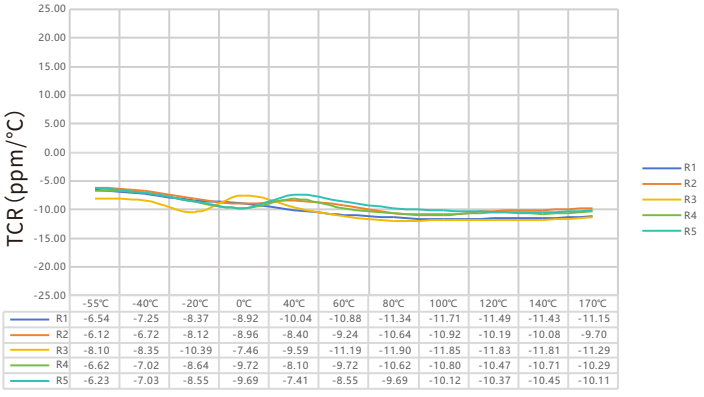
TCR Test Curve -PCSR2512 50mΩ



	-55℃	-40℃	-20℃	0℃	40℃	60℃	80℃	100℃	120℃	140℃	170℃
R1	5.07	4.03	3.00	1.97	2.48	3.00	3.52	2.52	1.52	0.53	-0.47
R2	5.60	4.55	3.50	2.45	2.72	3.00	3.27	2.30	1.33	0.36	-0.61
R3	5.08	4.04	3.01	1.97	1.99	2.01	2.02	1.49	0.96	0.42	-0.11
R4	2.14	0.82	-0.50	-1.82	-1.16	-0.50	0.16	-0.88	-1.91	-2.95	-3.98
R5	2.93	2.46	2.00	1.53	0.77	0.00	-0.77	-1.33	-1.90	-2.47	-3.04

Temperature (°C)

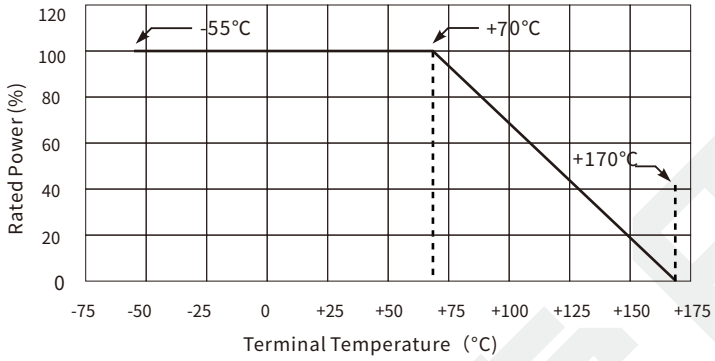
TCR Test Curve -PCSR2512 100mΩ



	-55℃	-40℃	-20℃	0℃	40℃	60℃	80℃	100℃	120℃	140℃	170℃
R1	-6.54	-7.25	-8.37	-8.92	-10.04	-10.88	-11.34	-11.71	-11.49	-11.43	-11.15
R2	-6.12	-6.72	-8.12	-8.96	-8.40	-9.24	-10.64	-10.92	-10.19	-10.08	-9.70
R3	-8.10	-8.35	-10.39	-7.46	-9.59	-11.19	-11.90	-11.85	-11.83	-11.81	-11.29
R4	-6.62	-7.02	-8.64	-9.72	-8.10	-9.72	-10.62	-10.80	-10.47	-10.71	-10.29
R5	-6.23	-7.03	-8.55	-9.69	-7.41	-8.55	-9.69	-10.12	-10.37	-10.45	-10.11

Temperature (°C)

Derating Curve



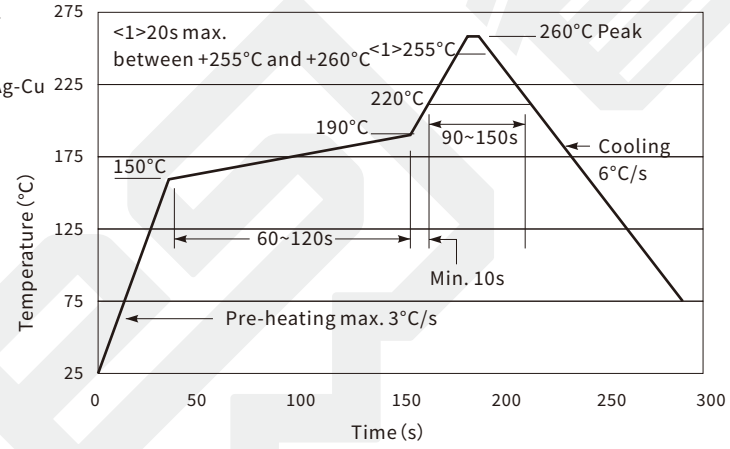
Reflow Soldering Profile

Resistor Surface Temperature:

Pre-Heat: +150°C~+190°C,60~120sec.

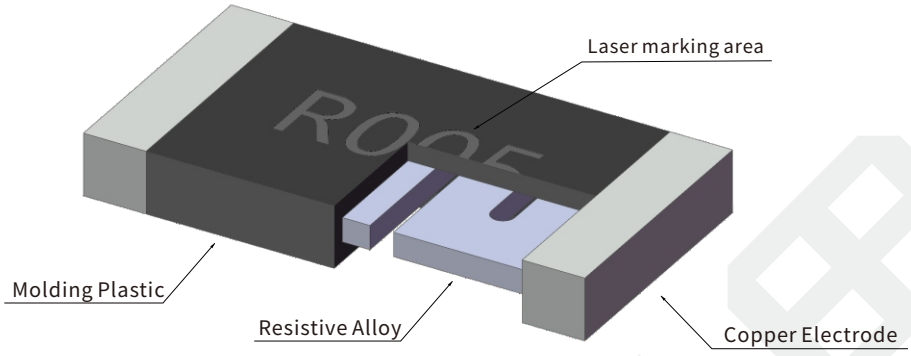
Reflow: Above +220°C,90~150sec.

Applicable Solder Composition: Sn-Ag-Cu



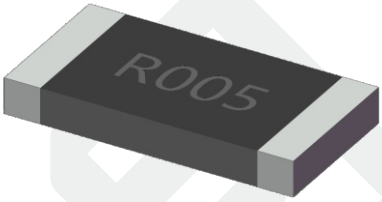
C&B Electronics Shenzhen CO., LTD.| www.resistor.today | resi@cbeureka.com | Tel:0755-82899519

Construction



Silk Screen Explanation

Product Identification Composition: Resistance Value Code

Size	Illustration	Demonstration
2512		R005=5mΩ R100=100mΩ

Storage Instructions

(1) Resistors should be stored at a temperature of 5 to 35 °C, with a humidity of<60% RH. The humidity should be kept as low as possible.

(2) Resistors should be protected from direct sunlight.

(3) Resistors should be stored in a clean and dry environment free of harmful gases (HCl, Sulfuric acid, H_2S, etc.)

(4) Do not move the resistor from the packaging unless use it.

(5) Under the above storage conditions, the resistor can be stored for at least 1 year.

Usage Suggestions

(1) Please protect the surface of the resistor during use. Prevent defects such as scratches, bumps, and oil stains on the surface.

(2) Do not use sharp tweezers to move the resistor. Scratches on the surface can cause resistance drift and resistor failure.

(3) When installing and using resistors, avoid the impact of mechanical stress on the resistor.

(4) The long-term operating power of resistors should be less than the rated power to avoid resistance drift caused by long-term overload.

(5) Please refer to the derating curve when operating under high temperature conditions or poor heat dissipation environment.

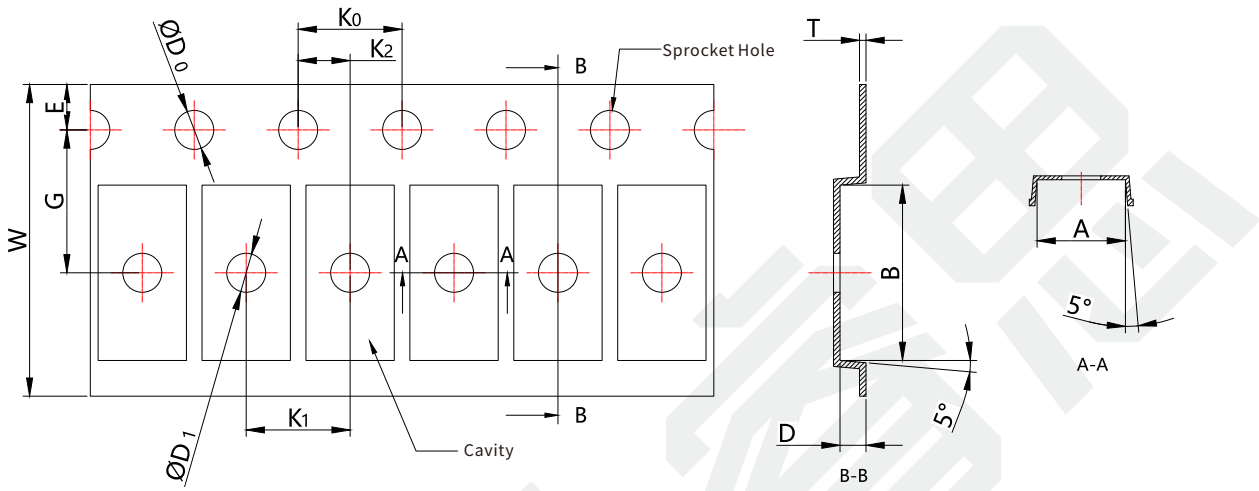
(6) If the operating conditions exceed the pulse specified in the pulse curve, a systematic evaluation is required.

(7) If the resistor is not used after being moved from the packaging, it should be stored under vacuum to avoid risks such as poor solderability caused by oxidation of the resistor.

Packaging

Tape Specifications

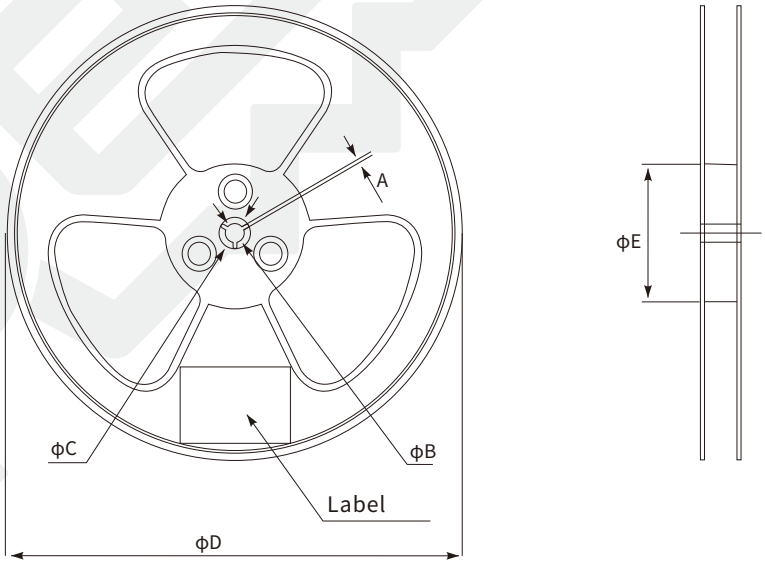
Unit:mm



Resistance	A	B	ϕD0	ϕD1	K0	K1	K2	E	G	W	D	T
5mΩ-100mΩ	3.40±0.2	6.75±0.2	1.5±0.1	1.5±0.1	4.0±0.1	4.0±0.1	2.0±0.1	1.75±0.1	5.5±0.1	12.0±0.3	1.0±0.1	0.25±0.05

Reel Specifications

Unit:mm



A	ϕB	ϕC	ϕD	ϕE
1.5 min.	13.5 +0.5/-0.2	20.2 Min.	178±2	60±2

C&B Electronics Shenzhen CO., LTD.| www.resistor.today | resi@cbeureka.com | Tel:0755-82899519

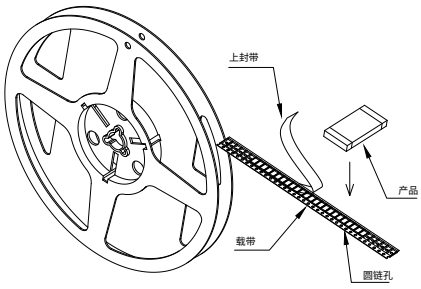
包装说明

(1) Package every 4,000 resistor units onto a single tape reel.

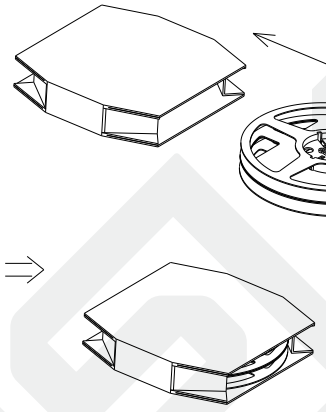
(2) Fix every two gel plates with a cardboard spacer, with the cardboard spacer measuring approximately 180mm × 180mm × 35mm.

(3) Place every eight paper clips into an outer carton for packaging, with each standard carton containing 64,000 pieces.

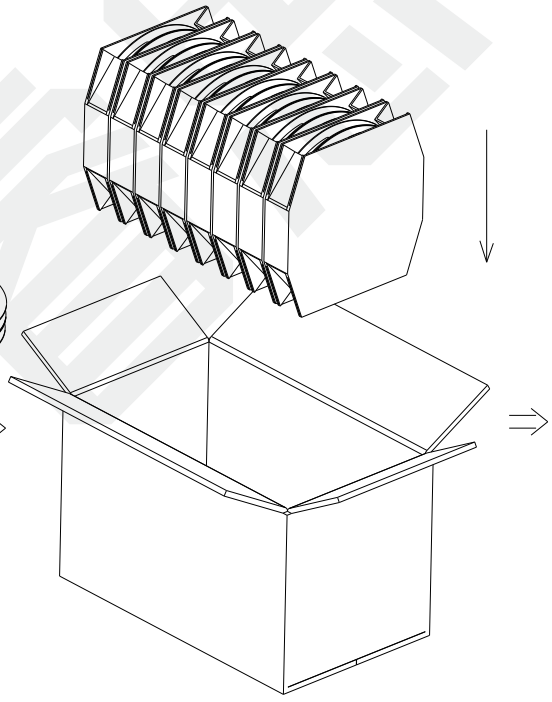
(4) The standard outer box dimensions are approximately 330mm × 195mm × 200mm.



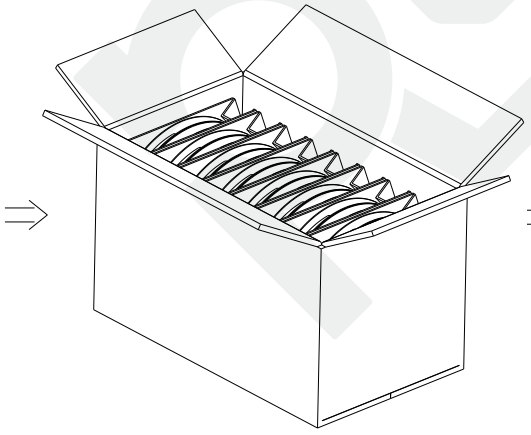
1. Package every 4,000 resistor units onto a single tape reel.



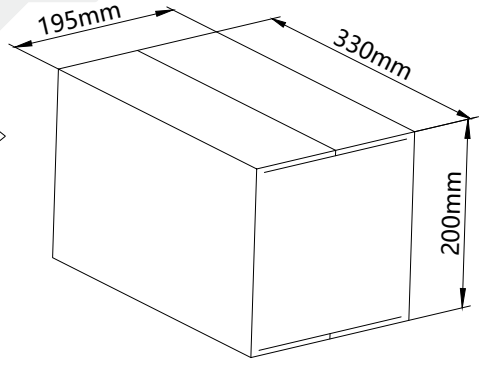
2. Secure every two gel plates with a paper clip board, the size of the paper clip board is approximately 180mm*180mm*35mm。



3. Place every eight paper clips into an outer carton for packaging, with each standard carton containing 64,000 pieces.



4. If it is the last box, empty cardboard dividers should be placed inside, filling up to eight per box, to prevent the products from shifting during transit.



5. The standard outer box dimensions are approximately 330mm × 195mm × 200mm.

Popular Part Numbers

Part Number	Size	Tolerance	Resistance	Silk Screening	TCR	Power	Max. Operating Current
PCSR2512BR005M9	2512	±0.1%	5.0mΩ	Clearly marked	±15ppm/°C	2W	20A
PCSR2512DR005M9	2512	±0.5%	5.0mΩ	Clearly marked	±15ppm/°C	2W	20A
PCSR2512FR005M9	2512	±1.0%	5.0mΩ	Clearly marked	±15ppm/°C	2W	20A
PCSR2512BR006M9	2512	±0.1%	6.0mΩ	Clearly marked	±15ppm/°C	2W	18A
PCSR2512DR006M9	2512	±0.5%	6.0mΩ	Clearly marked	±15ppm/°C	2W	18A
PCSR2512FR006M9	2512	±1.0%	6.0mΩ	Clearly marked	±15ppm/°C	2W	18A
PCSR2512BR007M9	2512	±0.1%	7.0mΩ	Clearly marked	±15ppm/°C	2W	16A
PCSR2512DR007M9	2512	±0.5%	7.0mΩ	Clearly marked	±15ppm/°C	2W	16A
PCSR2512FR007M9	2512	±1.0%	7.0mΩ	Clearly marked	±15ppm/°C	2W	16A
PCSR2512BR008M9	2512	±0.1%	8.0mΩ	Clearly marked	±15ppm/°C	2W	15A
PCSR2512DR008M9	2512	±0.5%	8.0mΩ	Clearly marked	±15ppm/°C	2W	15A
PCSR2512FR008M9	2512	±1.0%	8.0mΩ	Clearly marked	±15ppm/°C	2W	15A
PCSR2512BR009M9	2512	±0.1%	9.0mΩ	Clearly marked	±15ppm/°C	2W	14A
PCSR2512DR009M9	2512	±0.5%	9.0mΩ	Clearly marked	±15ppm/°C	2W	14A
PCSR2512FR009M9	2512	±1.0%	9.0mΩ	Clearly marked	±15ppm/°C	2W	14A
PCSR2512BR010M9	2512	±0.1%	10mΩ	Clearly marked	±15ppm/°C	2W	14A
PCSR2512DR010M9	2512	±0.5%	10mΩ	Clearly marked	±15ppm/°C	2W	14A
PCSR2512FR010M9	2512	±1.0%	10mΩ	Clearly marked	±15ppm/°C	2W	14A
PCSR2512BR015M9	2512	±0.1%	15mΩ	Clearly marked	±15ppm/°C	1W	8A
PCSR2512DR015M9	2512	±0.5%	15mΩ	Clearly marked	±15ppm/°C	1W	8A
PCSR2512FR015M9	2512	±1.0%	15mΩ	Clearly marked	±15ppm/°C	1W	8A
PCSR2512BR018M9	2512	±0.1%	18mΩ	Clearly marked	±15ppm/°C	1W	7A
PCSR2512DR018M9	2512	±0.5%	18mΩ	Clearly marked	±15ppm/°C	1W	7A
PCSR2512FR018M9	2512	±1.0%	18mΩ	Clearly marked	±15ppm/°C	1W	7A
PCSR2512BR020M9	2512	±0.1%	20mΩ	Clearly marked	±15ppm/°C	1W	7A
PCSR2512DR020M9	2512	±0.5%	20mΩ	Clearly marked	±15ppm/°C	1W	7A
PCSR2512FR020M9	2512	±1.0%	20mΩ	Clearly marked	±15ppm/°C	1W	7A
PCSR2512BR025M9	2512	±0.1%	25mΩ	Clearly marked	±15ppm/°C	1W	6A
PCSR2512DR025M9	2512	±0.5%	25mΩ	Clearly marked	±15ppm/°C	1W	6A
PCSR2512FR025M9	2512	±1.0%	25mΩ	Clearly marked	±15ppm/°C	1W	6A

Popular Part Numbers

Part Number	Size	Tolerance	Resistance	Silk Screening	TCR	Power	Max. Operating Current
PCSR2512BR030M9	2512	±0.1%	30mΩ	Clearly marked	±15ppm/°C	1W	5A
PCSR2512DR030M9	2512	±0.5%	30mΩ	Clearly marked	±15ppm/°C	1W	5A
PCSR2512FR030M9	2512	±1.0%	30mΩ	Clearly marked	±15ppm/°C	1W	5A
PCSR2512BR033M9	2512	±0.1%	33mΩ	Clearly marked	±15ppm/°C	1W	5A
PCSR2512DR033M9	2512	±0.5%	33mΩ	Clearly marked	±15ppm/°C	1W	5A
PCSR2512FR033M9	2512	±1.0%	33mΩ	Clearly marked	±15ppm/°C	1W	5A
PCSR2512BR040M9	2512	±0.1%	40mΩ	Clearly marked	±15ppm/°C	1W	5A
PCSR2512DR040M9	2512	±0.5%	40mΩ	Clearly marked	±15ppm/°C	1W	5A
PCSR2512FR040M9	2512	±1.0%	40mΩ	Clearly marked	±15ppm/°C	1W	5A
PCSR2512BR047M9	2512	±0.1%	47mΩ	Clearly marked	±15ppm/°C	1W	4A
PCSR2512DR047M9	2512	±0.5%	47mΩ	Clearly marked	±15ppm/°C	1W	4A
PCSR2512FR047M9	2512	±1.0%	47mΩ	Clearly marked	±15ppm/°C	1W	4A
PCSR2512BR050M9	2512	±0.1%	50mΩ	Clearly marked	±15ppm/°C	1W	4A
PCSR2512DR050M9	2512	±0.5%	50mΩ	Clearly marked	±15ppm/°C	1W	4A
PCSR2512FR050M9	2512	±1.0%	50mΩ	Clearly marked	±15ppm/°C	1W	4A
PCSR2512BR100M9	2512	±0.1%	100mΩ	Clearly marked	±15ppm/°C	1W	3A
PCSR2512DR100M9	2512	±0.5%	100mΩ	Clearly marked	±15ppm/°C	1W	3A
PCSR2512FR100M9	2512	±1.0%	100mΩ	Clearly marked	±15ppm/°C	1W	3A

Popular Part Numbers

Part Number	Size	Tolerance	Resistance	Silk Screening	TCR	Power	Max. Operating Current
PCSR2512BR005N9	2512	±0.1%	5.0mΩ	Clearly marked	±10ppm/°C	2W	20A
PCSR2512DR005N9	2512	±0.5%	5.0mΩ	Clearly marked	±10ppm/°C	2W	20A
PCSR2512FR005N9	2512	±1.0%	5.0mΩ	Clearly marked	±10ppm/°C	2W	20A
PCSR2512BR006N9	2512	±0.1%	6.0mΩ	Clearly marked	±10ppm/°C	2W	18A
PCSR2512DR006N9	2512	±0.5%	6.0mΩ	Clearly marked	±10ppm/°C	2W	18A
PCSR2512FR006N9	2512	±1.0%	6.0mΩ	Clearly marked	±10ppm/°C	2W	18A
PCSR2512BR007N9	2512	±0.1%	7.0mΩ	Clearly marked	±10ppm/°C	2W	16A
PCSR2512DR007N9	2512	±0.5%	7.0mΩ	Clearly marked	±10ppm/°C	2W	16A
PCSR2512FR007N9	2512	±1.0%	7.0mΩ	Clearly marked	±10ppm/°C	2W	16A
PCSR2512BR008N9	2512	±0.1%	8.0mΩ	Clearly marked	±10ppm/°C	2W	15A
PCSR2512DR008N9	2512	±0.5%	8.0mΩ	Clearly marked	±10ppm/°C	2W	15A
PCSR2512FR008N9	2512	±1.0%	8.0mΩ	Clearly marked	±10ppm/°C	2W	15A
PCSR2512BR009N9	2512	±0.1%	9.0mΩ	Clearly marked	±10ppm/°C	2W	14A
PCSR2512DR009N9	2512	±0.5%	9.0mΩ	Clearly marked	±10ppm/°C	2W	14A
PCSR2512FR009N9	2512	±1.0%	9.0mΩ	Clearly marked	±10ppm/°C	2W	14A
PCSR2512BR010N9	2512	±0.1%	10mΩ	Clearly marked	±10ppm/°C	2W	14A
PCSR2512DR010N9	2512	±0.5%	10mΩ	Clearly marked	±10ppm/°C	2W	14A
PCSR2512FR010N9	2512	±1.0%	10mΩ	Clearly marked	±10ppm/°C	2W	14A
PCSR2512BR015N9	2512	±0.1%	15mΩ	Clearly marked	±10ppm/°C	1W	8A
PCSR2512DR015N9	2512	±0.5%	15mΩ	Clearly marked	±10ppm/°C	1W	8A
PCSR2512FR015N9	2512	±1.0%	15mΩ	Clearly marked	±10ppm/°C	1W	8A
PCSR2512BR018N9	2512	±0.1%	18mΩ	Clearly marked	±10ppm/°C	1W	7A
PCSR2512DR018N9	2512	±0.5%	18mΩ	Clearly marked	±10ppm/°C	1W	7A
PCSR2512FR018N9	2512	±1.0%	18mΩ	Clearly marked	±10ppm/°C	1W	7A
PCSR2512BR020N9	2512	±0.1%	20mΩ	Clearly marked	±10ppm/°C	1W	7A
PCSR2512DR020N9	2512	±0.5%	20mΩ	Clearly marked	±10ppm/°C	1W	7A
PCSR2512FR020N9	2512	±1.0%	20mΩ	Clearly marked	±10ppm/°C	1W	7A
PCSR2512BR025N9	2512	±0.1%	25mΩ	Clearly marked	±10ppm/°C	1W	6A
PCSR2512DR025N9	2512	±0.5%	25mΩ	Clearly marked	±10ppm/°C	1W	6A
PCSR2512FR025N9	2512	±1.0%	25mΩ	Clearly marked	±10ppm/°C	1W	6A

Popular Part Numbers

Part Number	Size	Tolerance	Resistance	Silk Screening	TCR	Power	Max. Operating Current
PCSR2512BR030N9	2512	±0.1%	30mΩ	Clearly marked	±10ppm/°C	1W	5A
PCSR2512DR030N9	2512	±0.5%	30mΩ	Clearly marked	±10ppm/°C	1W	5A
PCSR2512FR030N9	2512	±1.0%	30mΩ	Clearly marked	±10ppm/°C	1W	5A
PCSR2512BR033N9	2512	±0.1%	33mΩ	Clearly marked	±10ppm/°C	1W	5A
PCSR2512DR033N9	2512	±0.5%	33mΩ	Clearly marked	±10ppm/°C	1W	5A
PCSR2512FR033N9	2512	±1.0%	33mΩ	Clearly marked	±10ppm/°C	1W	5A
PCSR2512BR040N9	2512	±0.1%	40mΩ	Clearly marked	±10ppm/°C	1W	5A
PCSR2512DR040N9	2512	±0.5%	40mΩ	Clearly marked	±10ppm/°C	1W	5A
PCSR2512FR040N9	2512	±1.0%	40mΩ	Clearly marked	±10ppm/°C	1W	5A
PCSR2512BR047N9	2512	±0.1%	47mΩ	Clearly marked	±10ppm/°C	1W	4A
PCSR2512DR047N9	2512	±0.5%	47mΩ	Clearly marked	±10ppm/°C	1W	4A
PCSR2512FR047N9	2512	±1.0%	47mΩ	Clearly marked	±10ppm/°C	1W	4A
PCSR2512BR050N9	2512	±0.1%	50mΩ	Clearly marked	±10ppm/°C	1W	4A
PCSR2512DR050N9	2512	±0.5%	50mΩ	Clearly marked	±10ppm/°C	1W	4A
PCSR2512FR050N9	2512	±1.0%	50mΩ	Clearly marked	±10ppm/°C	1W	4A
PCSR2512BR100N9	2512	±0.1%	100mΩ	Clearly marked	±10ppm/°C	1W	3A
PCSR2512DR100N9	2512	±0.5%	100mΩ	Clearly marked	±10ppm/°C	1W	3A
PCSR2512FR100N9	2512	±1.0%	100mΩ	Clearly marked	±10ppm/°C	1W	3A

Revision

Version	Revised Content	Date	Approver
V0	Initial Issue	2019.12.26	YBP
V1	Overall Revision of the Specification Document	2020.02.27	YBP
V2	Improve the description of material information	2020.03.09	YBP
V3	Complete revision of the specification document, improving the material information description for the 10mΩ to 100mΩ range.	2022.07.17	LWW
V4	The specification booklet has been completely revised, adding product specifications for 5mΩ~9mΩ, and improving information on product reliability, packaging, and other details.	2024.03.24	LWW
V5	The rated power of 5mΩ~10mΩ products has been upgraded from 1W to 2W.	2024.07.30	LWW
V6	New series meeting automotive standards	2025.01.13	LWW
V7	1. Remove the 'AEC-Q200 standard' from the thermal shock testing 2. Adjust the typical load life value to '△R ⩽ ±0.2%' and the maximum value to '△R ⩽ ±0.75%'. 3. For welding resistance, remove the 'solder trough'	2025.02.28	LWW
V8	Added material with a temperature coefficient of 10 ppm/°C	2025.10.29	LWW

Disclaimer

All products, datasheets and data can be changed without prior notice.

C&B Electronics Shenzhen CO., LTD., its affiliates, distributors, employees, and any other person acting on its behalf (collectively referred to as "C&B Electronics") shall not bear any legal responsibility for any errors, inaccuracies, or incompleteness of information related to the product disclosed under this agreement or other disclosures.

Product datasheet does not constitute an extension or revision of the purchase terms and conditions in C&B Electronics, including but not limited to the warranties under this agreement.

Unless specified in the purchase terms and conditions, C&B Electronics makes no guarantees, representations or warranties.

To the maximum extent permitted by applicable laws, C&B Electronics hereby makes the following disclaimer:
(1) All liabilities arising from the use of the product;
(2) Including but not limited to all liabilities arising from special, indirect or incidental damages;
(3) All implied warranties, including warranties of suitability for special purposes, non infringement possibility, and marketability.

The information provided in the datasheet and parameter tables may vary in different applications, and the performance of the product may change over time. The recommended application instructions for the product are based on C&B Electronics' understanding and experience of typical requirements. Customers are obligated to verify whether the product is suitable for a specific application based on the parameters provided in the datasheet . Before officially installing or using the product, you should ensure that you have obtained the latest version of relevant information, which can be obtained through the website: resistor.today.

The signing of this agreement does not constitute an express, implied or other form of license related to all intellectual property rights of C&B Electronic Products.

Unless explicitly stated, the products listed in this agreement are not applicable to lifesaving or life sustaining products. In the absence of a clear indication, the customer shall bear all risks caused by unauthorized use of the above products and agree to fully compensate C&B Electronics for all losses caused by such sales or use. For written product terms for such special applications, please contact authorized personnel from C&B Electronics to obtain.

The names and markings on the listed products may be trademarks owned by others.