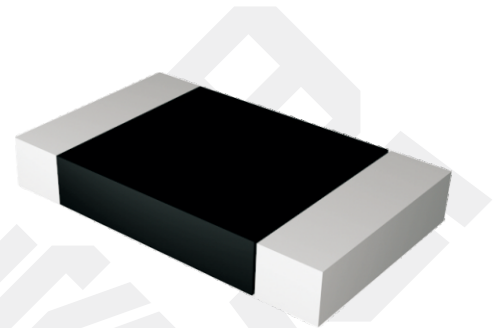


**TCR  $\leq \pm 15 \text{ppm}/^\circ\text{C}$  (-55~125°C, +20°C Ref), Tightest tolerance  $\pm 0.1\%$   
**Excellent long-term stability Low thermal EMF**  
**AEC-Q200 qualified****

**Introduction**

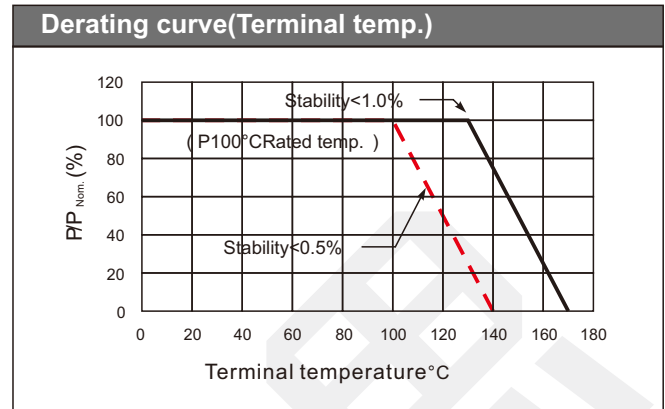
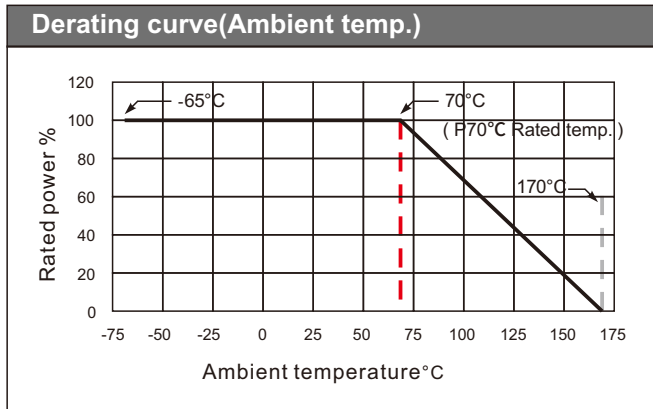
This series is made from a precision Nickel-Chrome alloy and which is then precisely machined and welded using exclusive EB-Welding equipment designed and manufactured independently by C&B Group. PCSR series is molded version which can achieve ultra-low TCR within  $\pm 15 \text{ppm}/^\circ\text{C}$  and high tolerance up to  $\pm 0.1\%$ . With an operating temperature range of  $-65^\circ\text{C}$  to  $+170^\circ\text{C}$ , the series is ideal for current sensing circuits which ask for high precision and low TCR at the same time. Visit [www.resistor.today](http://www.resistor.today) to check stock and more information.


**Application**

- Precision Instrument
- Semiconductor ATE
- Battery test equipment
- Precision power supply

Specifications (mm)								
Series	Size	Rated Power	Resistance range	Tolerance	TCR	Operating temp	Material	Packaging
PCSR	2512	1W	10mΩ~100mΩ	$\pm 0.1\%$ $\pm 0.5\%$ $\pm 1\%$ $\pm 5\%$	$\leq \pm 15 \text{ppm}/^\circ\text{C}$ (-55°C~+125°C, +20°C Ref)	-65°C~+170°C	Nickel-Chrome	tape&reel 4000pcs/reel
Dimensions								
L	W	H	D	a	b	c		
6.40±0.2	3.2±0.2	0.8±0.1	0.8±0.2	3.6±0.1	3.6±0.1	2.0±0.1		

Part Number Information														
Example, PCSR2512BR010M9 (PCSR 2512 $\pm 0.1\%$ 10mΩ $\pm 15 \text{ppm}/^\circ\text{C}$ Standard)														
P	C	S	R	2	5	1	2	B	R	0	1	0	M	9
Series PCSR			Size 2512		Tolerance B= $\pm 0.1\%$ D= $\pm 0.5\%$ F= $\pm 1\%$ J= $\pm 5\%$			Resistance R010=10mΩ R015=15mΩ R020=20mΩ R050=50mΩ R100=100mΩ			TCR M= $\pm 15 \text{ppm}/^\circ\text{C}$		Code 9=Standard 6=Unmarked	



Performance				
Test Item	Test Method	Standard	Typical	Maximum
Short-time overload	5x rated power for 5s,measured 24±2h after test	MIL-STD-202 Method 201	±0.1%	±0.3%
High temp. storage	+170°C,1000h,no load,measured 24±2h after test	MIL-STD-202 Method 108	±0.2%	±0.5%
Moisture resistance	T=24h/cycle,no load,7a and 7b not required,measured 24±2h after test	MIL-STD-202 Method 106	±0.02%	±0.05%
Load life	+70°C,2000h,rated power,measured 24±2h after test	MIL-STD-202 Method 108	±0.2%	±0.5%
Resistance to soldering heat	+260°C±5°C,10s±1s,measured 24±2h after test	MIL-STD-202 Method 210	±0.05%	±0.3%
Thermal shock	-55°C~+125°C,1000 cycles,measured 24±2h after test	JESD22 Method JA-104	±0.1%	±0.5%
High temp. & high humidity	+85°C,85%RH,10% of rated power,1000h,measured 24±2h after test	MIL-STD-202 Method 103	±0.05%	±0.3%
Solderability	+235°C±5°C,2s±0.5s	J-STD-202	95% covered	

Popular Part Number				
Part Number	Size	Tolerance	Resistance	TCR
PCSR2512JR010M9	2512	±5%	10mΩ	±15ppm/°C
PCSR2512JR015M9	2512	±5%	15mΩ	±15ppm/°C
PCSR2512JR020M9	2512	±5%	20mΩ	±15ppm/°C
PCSR2512JR050M9	2512	±5%	50mΩ	±15ppm/°C
PCSR2512JR100M9	2512	±5%	100mΩ	±15ppm/°C
PCSR2512FR010M9	2512	±1%	10mΩ	±15ppm/°C
PCSR2512FR015M9	2512	±1%	15mΩ	±15ppm/°C
PCSR2512FR020M9	2512	±1%	20mΩ	±15ppm/°C
PCSR2512FR050M9	2512	±1%	50mΩ	±15ppm/°C
PCSR2512FR100M9	2512	±1%	100mΩ	±15ppm/°C
PCSR2512DR010M9	2512	±0.5%	10mΩ	±15ppm/°C
PCSR2512DR015M9	2512	±0.5%	15mΩ	±15ppm/°C
PCSR2512DR020M9	2512	±0.5%	20mΩ	±15ppm/°C
PCSR2512DR050M9	2512	±0.5%	50mΩ	±15ppm/°C
PCSR2512DR100M9	2512	±0.5%	100mΩ	±15ppm/°C
PCSR2512BR010M9	2512	±0.1%	10mΩ	±15ppm/°C
PCSR2512BR015M9	2512	±0.1%	15mΩ	±15ppm/°C
PCSR2512BR020M9	2512	±0.1%	20mΩ	±15ppm/°C
PCSR2512BR050M9	2512	±0.1%	50mΩ	±15ppm/°C
PCSR2512BR100M9	2512	±0.1%	100mΩ	±15ppm/°C