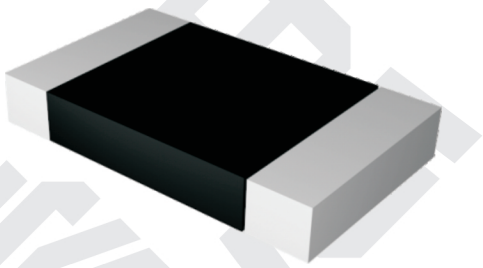
TCR ⩽±25ppm/°C (-55~125°C,+20°C Ref), Tightest tolerance ±0.5%
Excellent long-term stability Low thermal EMF
AEC-Q200 qualified

Introduction

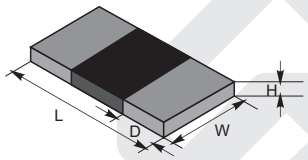
This series is made from a precision Nickel-Chrome alloy and which is then precisely machined and welded using exclusive EB-Welding equipment designed and manufactured independently by C&B Group. PCSR series is molded version which can achieve ultra-low TCR within ±15 ppm/°C and high tolerance up to ±0.1%. With an operating temperature range of -65°C to +170°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 to check stock and more information.

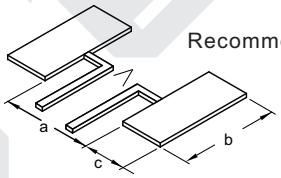


Application

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

Specifications (mm)





Series	Size	Rated Power	Resistance range	Tolerance	TCR	Operating temp	Material	Packaging
PCSK	2512	1W	10mΩ~100mΩ	±0.5% ±1% ±5%	≤±25ppm/°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: PCSK2512BR010P9 (PCSK 2512 ±1% 10mΩ ±25ppm/℃ Standard)

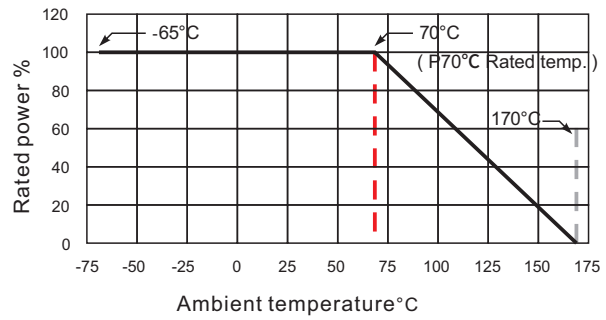
P	C	S	K	2	5	1	2	F	R	0	1	0	P	9

- Series: PCSK
- Size: 2512
- Tolerance: D=±0.5%, F=±1%, J=±5%
- Resistance: R010=10mΩ, R015=15mΩ, R020=20mΩ, R050=50mΩ, R100=100mΩ
- TCR: P=±25ppm/°C
- Code: 9=Standard, 6=Unmarked

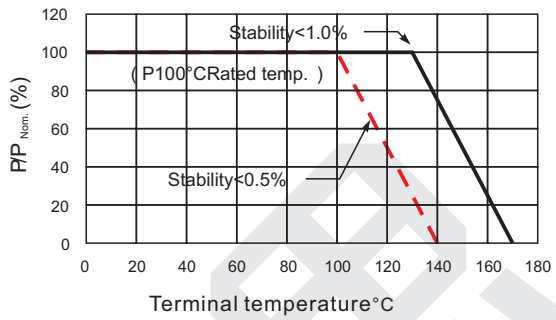
PCSK

Molded Precision Current Sensing Resistor

Derating curve(Ambient temp.)



Derating curve(Terminal temp.)



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% coverd	

Popular Part Number

Part Number	Size	Tolerance	Resistance	TCR
PCSK2512JR010P9	2512	±5%	10mΩ	±25ppm/°C
PCSK2512JR015P9	2512	±5%	15mΩ	±25ppm/°C
PCSK2512JR020P9	2512	±5%	20mΩ	±25ppm/°C
PCSK2512JR050P9	2512	±5%	50mΩ	±25ppm/°C
PCSK2512JR100P9	2512	±5%	100mΩ	±25ppm/°C
PCSK2512FR010P9	2512	±1%	10mΩ	±25ppm/°C
PCSK2512FR015P9	2512	±1%	15mΩ	±25ppm/°C
PCSK2512FR020P9	2512	±1%	20mΩ	±25ppm/°C
PCSK2512FR050P9	2512	±1%	50mΩ	±25ppm/°C
PCSK2512FR100P9	2512	±1%	100mΩ	±25ppm/°C
PCSK2512DR010P9	2512	±0.5%	10mΩ	±25ppm/°C
PCSK2512DR015P9	2512	±0.5%	15mΩ	±25ppm/°C
PCSK2512DR020P9	2512	±0.5%	20mΩ	±25ppm/°C
PCSK2512DR050P9	2512	±0.5%	50mΩ	±25ppm/°C
PCSK2512DR100P9	2512	±0.5%	100mΩ	±25ppm/°C