C&B EUREKA 开步电子 | RESI 睿思

RESI Product Profile

C&B Electronics was established in 2006 and located in Shenzhen with four subsidiaries engaged in R&D and manufacture of high end resistors, high precision current sensor, high precision alloy and electron beam welding equipment.

Current Sensing Resistor

High Voltage

Current Sensor

PCB+Shunt

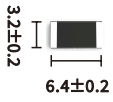
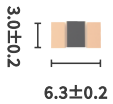
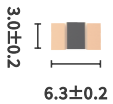
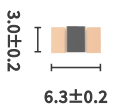
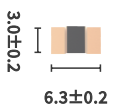
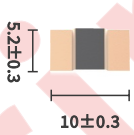
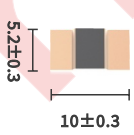
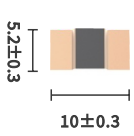
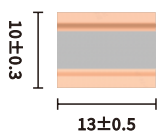
High Power

HIGH-END COMPONENTS
SMART SHUNT CURRENT SENSOR

CURRENT SENSING RESISTOR

Introduction

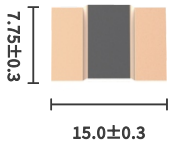
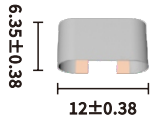
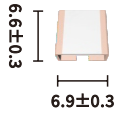
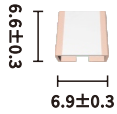
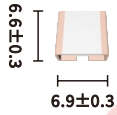
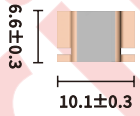
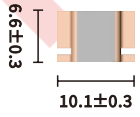
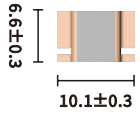
Alloy current sensing resistors are made of C&B independently developed and low-TCR precision alloy, processed precisely and welded by C&B independently developed specialized electron beam welding machine. Because of welding quality improvement, thermal EMF of the product is decreased and product stability is improved significantly. C&B current sensing resistor has achieved independent and controllable core processes from raw materials to core equipment, stable quality and timely delivery.

Series	Product & Size	Rated Power	Resistance Range	Tightest Tolerance	TCR	Load Life
PCSR2512		1W	10~100mΩ	±0.1%	±15ppm/°C (-55°C~+125°C, +20°C Ref)	±0.2%
PCSK2512		1W	10~100mΩ	±0.5%	±25ppm/°C (-55°C~+125°C, +20°C Ref)	±0.2%
EBWK2512		2.5-5W	2~5mΩ	±0.5%	±100ppm/°C (-55°C~+170°C, +20°C Ref)	±0.5%
SEWF2512		2.5~4W	3~5mΩ	±0.5%	±25ppm/°C (-55°C~+170°C, +20°C Ref)	±0.5%
EBWM2512		6W	0.3-1mΩ	±0.5%	±200ppm/°C (-55°C~+170°C, +20°C Ref)	±0.5%
PEWF2512		2.5-5W	1.5-5mΩ	±0.5%	±50ppm/°C (-55°C~+170°C, +20°C Ref)	±0.5%
SEWF3920		3-8W	1mΩ-5mΩ	±0.5%	±25ppm/°C (-55°C~+170°C, +20°C Ref)	±0.5%
PEWM3920		8-10W	0.2-1mΩ	±0.5%	±100~±150ppm/°C (+20°C~+170°C, +20°C Ref)	±0.5%
PEWK3920		3-8W	1-5mΩ	±0.5%	±50ppm/°C (-55°C~+170°C, +20°C Ref)	±0.5%
SEWF3951		10-15W	0.25-0.8mΩ	±0.5%	±25ppm/°C (+20°C~+120°C, +20°C Ref)	±0.5%

CURRENT SENSING RESISTOR

Introduction

Alloy current sensing resistors are made of C&B independently developed and low-TCR precision alloy, processed precisely and welded by C&B independently developed specialized electron beam welding machine. Because of welding quality improvement, thermal EMF of the product is decreased and product stability is improved significantly. C&B current sensing resistor has achieved independent and controllable core processes from raw materials to core equipment, stable quality and timely delivery.

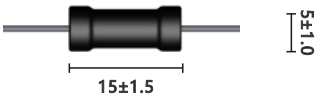
Series	Product & Size	Rated Power	Resistance Range	Tightest Tolerance	TCR	Load Life
SEWF5930		6-10W	1-3mΩ	±0.5%	±25ppm/°C (-55°C~+170°C, +20°C Ref)	±0.5%
EOAR		5W	25mΩ	±0.5%	±40ppm/°C (+20°C~+170°C, +20°C Ref)	±0.5%
UEWM2726		12W	0.2mΩ	±0.5%	±25ppm/°C (-55°C~+170°C, +20°C Ref)	±0.5%
PEWM2726		9-11W	0.3-0.5mΩ	±0.5%	±100ppm/°C (-55°C~+170°C, +20°C Ref)	±0.5%
PEWF2726		3-7W	1-5mΩ	±0.5%	±50~±100ppm/°C (-55°C~+170°C, +20°C Ref)	±0.5%
UEWM4026		12W	0.2mΩ	±0.5%	±25ppm/°C (-55°C~+170°C, +20°C Ref)	±0.5%
PEWM4026		9-11W	0.3-0.5mΩ	±0.5%	±100ppm/°C (-55°C~+170°C, +20°C Ref)	±0.5%
PEWF4026		3-7W	1-5mΩ	±0.5%	±50~±100ppm/°C (-55°C~+170°C, +20°C Ref)	±0.5%

HIGH-VOLTAGE RESISTOR

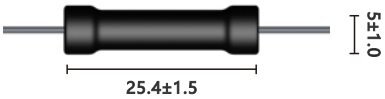
Introduction

To produce a high-voltage resistor, we must choose suitable coating materials, which balance heat dissipation capacity and insulation performance. Generally speaking, the heat dissipation capacity of silicone resin is better than that of epoxy resin, but the insulating capacity is not as good as epoxy resin. RESI selected a high-level epoxy resin coating material to produce our high-voltage resistor that is good at both insulation and heat dissipation capabilities. There is no air bubbles on the surface after the encapsulation, and the insulation ability is significantly better than silicone resin and other epoxy resins. The heat dissipation capacity is also better than other types of epoxy resin.

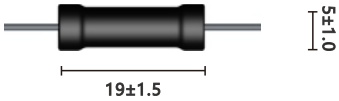
HVLR1505
0.7W 2.5KV



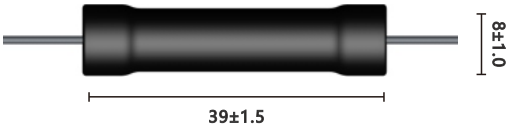
HVLR2505
1.2W 5.5KV



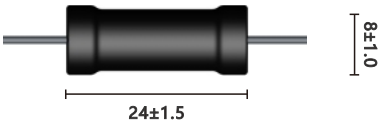
HVLR1905
1W 3.5KV



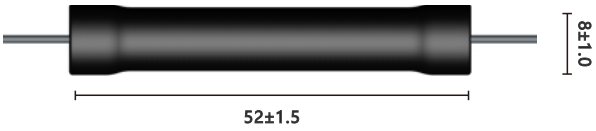
HVLR3908
3W 10KV



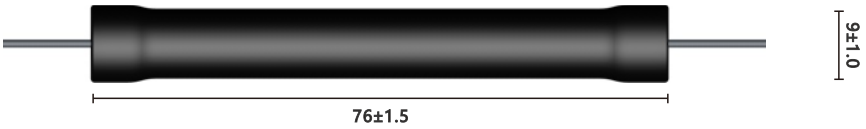
HVLR2408
2W 5.5KV



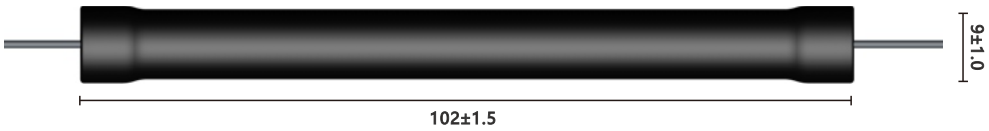
HVLR5208
5W 15KV



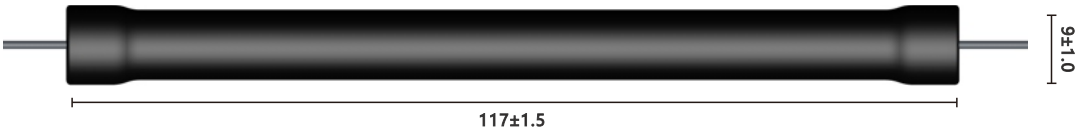
HVLR7609
7.5W 22.5KV



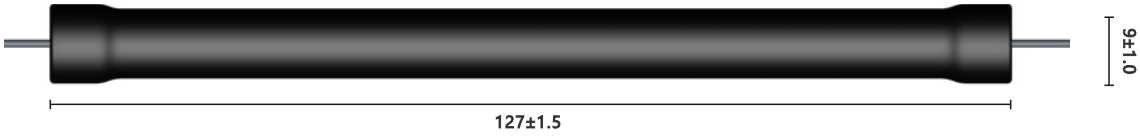
HVLR1029
10W 32KV



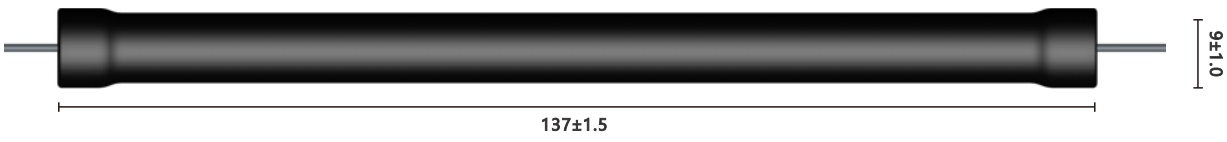
HVLR1179
11W 35KV



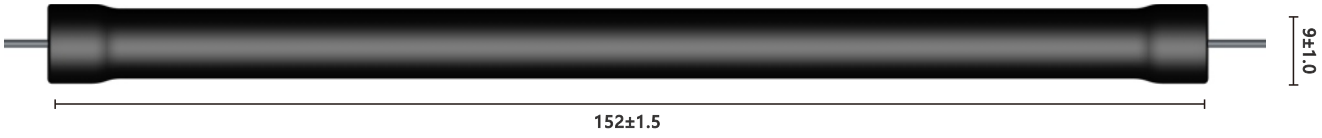
HVLR1279
12W 40KV



HVLR1379
13W 45KV



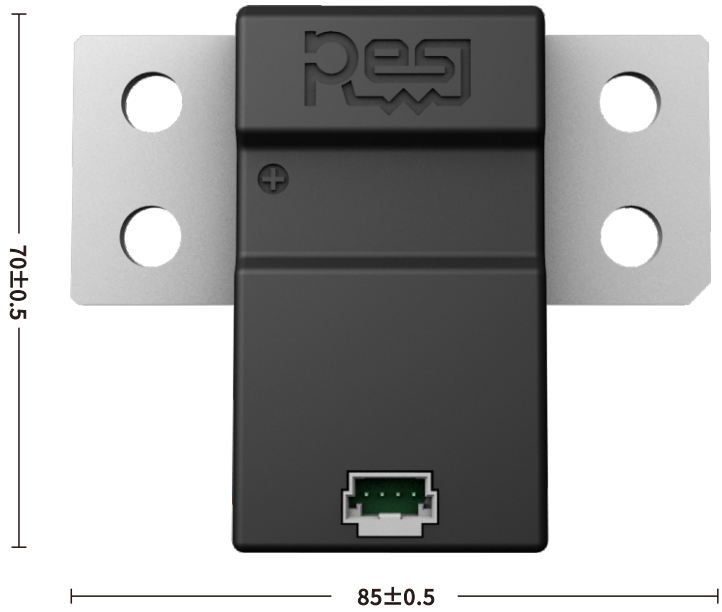
HVLR1529
15W 48KV



SHUNT BASED CURRENT SENSOR

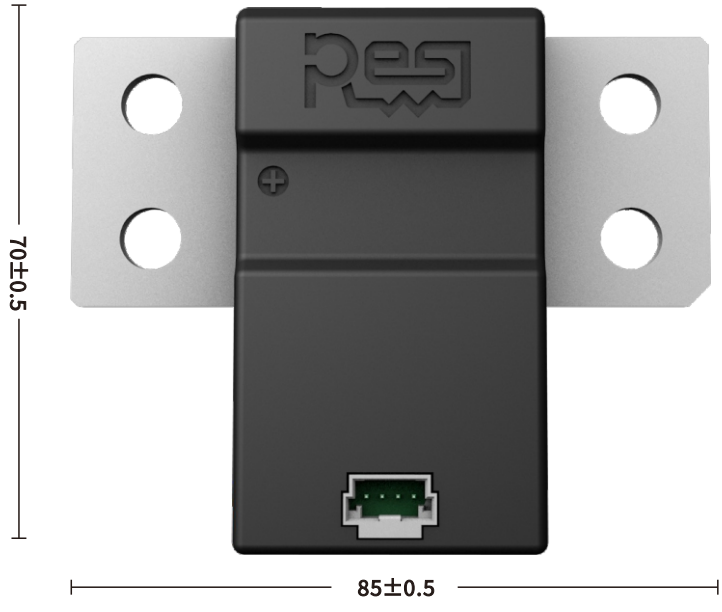
Introduction

Current sensor is an automotive current sensing module, which can be used to measure bidirectional DC current. Featuring high accuracy, low power consumption, wide operating temperature range, excellent response speed, temperature stability and anti-interference ability. It can realize complete high-low voltage isolation, which can be applied to the main positive electrode or the main negative electrode of the battery system.



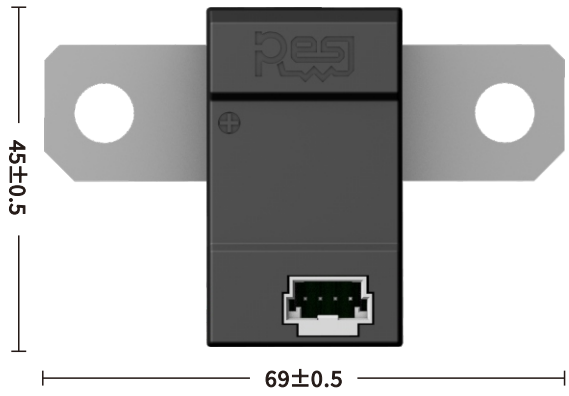
CB-1000

- Current Measurement Range: -20000A~+20000A
  - Continuous Operating Range:-1000A~+1000A
  - Measurement Accuracy: ±0.1%(MAX)
  - Resolution: 1mA
- Temperature Measurement Range : -50°C~+150°C
  - Measurement Error: ±3°C(MAX)
  - Resolution: 0.1°C
- Supply Voltage: 6V~18V
- Operation Temperature Range:- 40°C~+105°C
- Power Consumption: ⩽384mW @12VDC
- Galvanic Isolation: 3000VAC



CB-600

- Current Measurement Range: -20000A~+20000A
  - Continuous Operating Range:-600A~+600A
  - Measurement Accuracy: ±0.1%(MAX)
  - Resolution: 1mA
- Temperature Measurement Range : -50°C~+150°C
  - Measurement Error: ±3°C(MAX)
  - Resolution: 0.1°C
- Supply Voltage: 6V~18V
- Operation Temperature Range: -40°C~+105°C
- Power Consumption: ⩽384mW @12VDC
- Galvanic Isolation: 3000VAC



CB-350

- Current Measurement Range: -8000A~+8000A
  - Continuous Operating Range:-350A~+350A
  - Measurement Accuracy: ±0.1%(MAX)
  - Resolution: 10mA
- Temperature Measurement Range : -50°C~+150°C
  - Measurement Error: ±3°C(MAX)
  - Resolution: 0.1°C
- Supply Voltage: 6V~18V
- Operation Temperature Range: -40°C~+105°C
- Power Consumption: ⩽216mW @12VDC
- Galvanic Isolation: 3000VAC

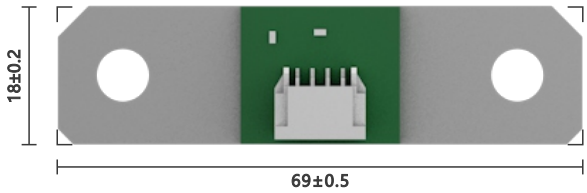
Shunt+PCB

Introduction

Precision Mn-Cu automotive shunt adopts specialized alloy materials, and conducts precision heat treatment process, electron beam welding process and high-precision Trimming Free technology, achieving low thermal EMF and low inductance. Kelvin connection is adopted for current sensing. The voltage output structure is various, with four types of structures: PIN, M3 hole, standard, and standard nickel plated.

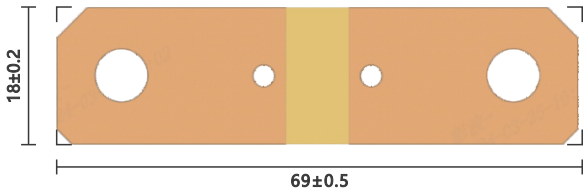
Current sensing module used to assist in measuring bidirectional DC current. It has high accuracy, low TCR, low inductance, low thermal EMF, and excellent long-term stability and anti-interference ability.This module is designed based on a low-TCR shunt, which is welded with PCBA and can be installed on the circuit through bolts. It is used to collect bus current and shunt temperature, and send the measured signal to the signal processing side of the user defined module. It can be customized according to the specific technical requirements.

AEC-Q200



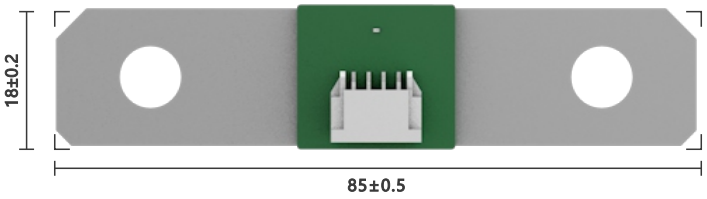
PCBS6918

Resistance:100μΩ
Tightest : ±5%
Continuous Operating Range:±350A
Operation Temperature Range:-55℃~ +175℃



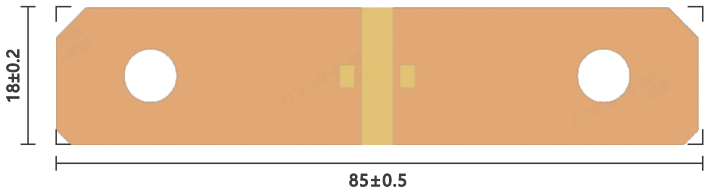
ARCS6918

Resistance:50μΩ, 100μΩ
TCR: ±100ppm/℃
Output Voltage:35mV, 50mV
Rated Current:500A, 700A



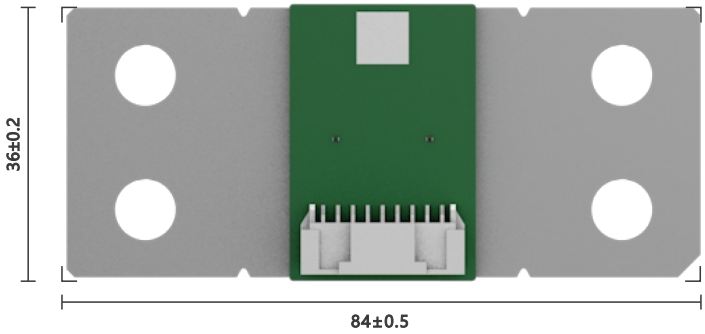
PCBS8518

Resistance:50μΩ
Tightest : ±5%
Continuous Operating Range:±350A
Operation Temperature Range:-55℃~ +175℃



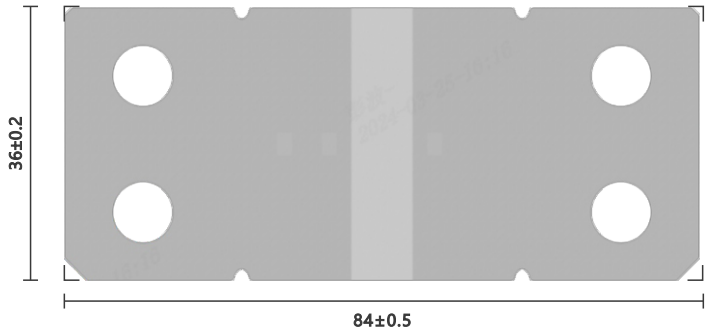
ARCS8518

Resistance:50μΩ, 100μΩ
TCR: ±100ppm/℃
Output Voltage:40mV, 60mV
Rated Current:600A, 840A



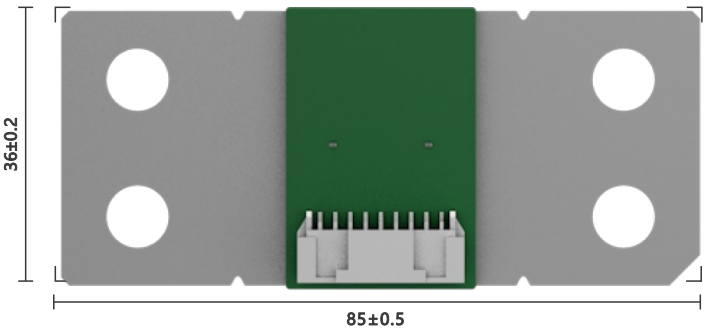
PCBS8436

Resistance:25μΩ
Tightest : ±5%
Continuous Operating Range:±1000A
Operation Temperature Range:-55℃~ +175℃



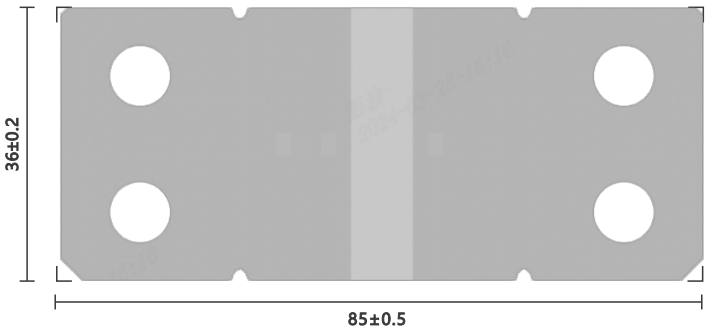
ARCS8436

Resistance:25μΩ, 50μΩ
TCR: ±100ppm/℃
Output Voltage:50mV
Rated Current:1000A, 1410A



PCBS8536

Resistance:50μΩ
Tightest : ±5%
Continuous Operating Range:±600A
Operation Temperature Range:-55℃~ +175℃



ARCS8536

Resistance:25μΩ, 50μΩ
TCR: ±100ppm/℃
Output Voltage:50mV
Rated Current:1000A, 1410A

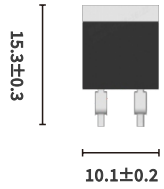
TO-220
NON-INDUCTIVE
HIGH-POWER RESISTOR

Introduction

TO-220 non-inductive high-power resistor adopts a flange for its better heat dissipation to balance the thermal characteristics of the circuit. It has excellent long-term stability, low TCR, high heat dissipation, low thermal resistance and low current noise, applying for a wide range. It is usually designed for high-frequency transmission circuits of switching power supplies, voltage regulation, and low energy pulse loads. From raw materials, core production equipment, to process technology, C&B Electronics production is independent and controllable and achieves stable quality and timely delivery.

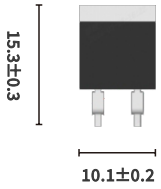
AEC-Q200

TPAN0263



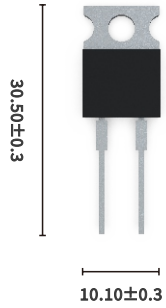
Resistance Range：0.5Ω~10KΩ
Rated Power：50W
Tightest Tolerance：±0.5%
TCR：±100ppm/℃
Max. Operating Voltage：500V
Thermal Resistance：2.1℃/W
Package：TO-263

TPAL0263



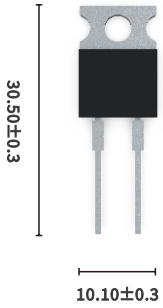
Resistance Range：0.5Ω~10KΩ
Rated Power：35W
Tightest Tolerance：±0.5%
TCR：±100ppm/℃
Max. Operating Voltage：500V
Thermal Resistance：3.0℃/W
Package：TO-263

TPAN0220



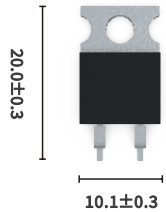
Resistance Range：0.5Ω~10KΩ
Rated Power：50W
Tightest Tolerance：±0.5%
TCR：±100ppm/℃
Max. Operating Voltage：500V
Thermal Resistance：2.1℃/W
Package：TO-220

TPAL0220



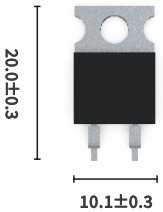
Resistance Range：0.5Ω~10KΩ
Rated Power：35W
Tightest Tolerance：±0.5%
TCR：±100ppm/℃
Max. Operating Voltage：500V
Thermal Resistance：3.0℃/W
Package：TO-220

TPAN220S



Resistance Range：0.5Ω~10KΩ
Rated Power：50W
Tightest Tolerance：±0.5%
TCR：±100ppm/℃
Max. Operating Voltage：500V
Thermal Resistance：2.1℃/W
Package：TO-220

TPAL220S



Resistance Range：0.5Ω~10KΩ
Rated Power：35W
Tightest Tolerance：±0.5%
TCR：±100ppm/℃
Max. Operating Voltage：500V
Thermal Resistance：3.0℃/W
Package：TO-220

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