

SINLOON®

高精密低阻值合金電阻

Resistance Range: 5m - 300m Ω

Type:

PVR Series

Precision Alloy Low ohm Resistor

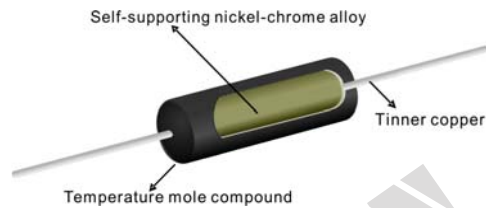
Feature

- Extremely low resistance value.
- 超低電阻值
- Ultra low ohm , Not inductance.
- 毫歐低阻值, 無感抗值.
- Low temperature coefficient.
- 低溫度系數(低溫飄).
- Design for types of current sensing application.
- 應用於電流感測電路設計.
- High power small size.
- 本體小功率大.
- Series PVR match with the European standard and the requirements of SONY-RoHS SS00259 standard.
- PVR 系列符合歐盟RoHS準及SONY-SS000295 條件要求.

Figure



Construction



Ordering part number:

Example: PVR-01R005DBB (1W 0.005R 0.5% 10ppm Bulk)

Power	Type P/N.	Resistance	Toerance	T.C.R/°C	Package
1W	PVR-01	m5=R0005	B=±0.1%	S=±5ppm	B: Bulk
3W	PVR-03	5m=R005	C=±0.25%	B=±10ppm	T: T/Box
5W	PVR-05	50m=R05	D=±0.5%	N=±15ppm	
10W	PVR-10	500m=R50	F=±1%	C=±25ppm	
			G=±2%	D=±50ppm	
			J=±5%	E=±100ppm	

Dimensions (mm)

Power	Type P/N.	L ±1.5	ΦD: ±0.3	Φd: ±0.1	H: ±3
1W	PVR-01	11.0	3.0	0.6	26.0
3W	PVR-03	15.2	5.0	0.8	22.0
5W	PVR-05	23.5	8.4	1.0	30.0
10W	PVR-10	46.5	10.0	1.0	30.0



Specification Data

Power	Type P/N.	Maximum		Insulation Voltage	Resistance Range (Ω)	Tolerance	Operating Temperature Range
		Working vol.	Overload vol				
1W	PVR-01	* (PxR) <sup>1/2</sup>	1000V	500V	5m~50m	±0.1%	-65°C ~ +175°C
3W	PVR-03	* (PxR) <sup>1/2</sup>	1000V	500V	m5~100m	±0.5%	-65°C ~ +175°C
5W	PVR-05	* (PxR) <sup>1/2</sup>	1000V	1000V	m5~200m	±1%,±2%	-65°C ~ +275°C
10W	PVR-10	* (PxR) <sup>1/2</sup>	1000V	1000V	m5~300m	±5%	-65°C ~ +275°C
Rating Ambient temperature:			±25°C				

\* : (Rated Power X Current Resistance)<sup>1/2</sup>

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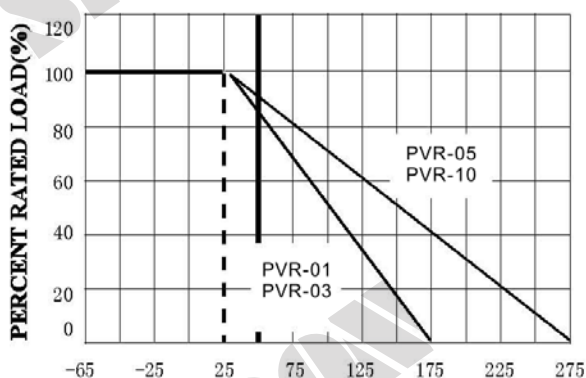
**Characteristics**

The improved TCR characteristics of these PVR models from -55°C to +125°C (reference to +25°C) are as follows

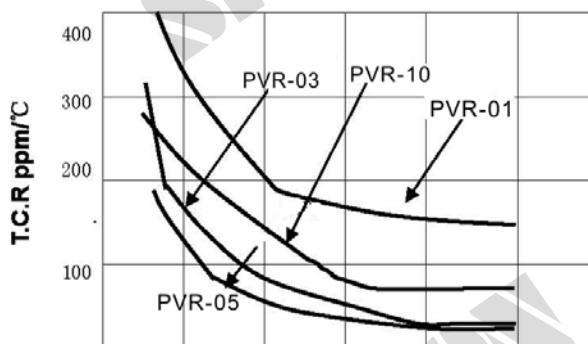
Test Item	Specification	Test Method
Thermal Shock	$\pm(0.2\%+m5\Omega) \Delta R$	-65°C to +125°C, 5cycles 15min at each extreme
Short time overload	$\pm(0.5\%+m5\Omega) \Delta R$	5 times of rated power (PVR01,03,05); 10 times of rated power (PVR10 for 5 seconds)
Low temperature storage	$\pm(0.2\%+m5\Omega) \Delta R$	-65°C for 24hrs
High temperature exposure	$\pm(2.0\%+m5\Omega) \Delta R$	250hrs at +275°C (+175°C for PVR01)
Dielectric withstanding Voltage	$\pm(0.1\%+m5\Omega) \Delta R$	1KV / 1minimum
Insulation resistance	1000M Ω minimum	MIL-STD-202 method 302, 100V
Moisture resistance	$\pm(0.2\%+m5\Omega) \Delta R$	MIL-STD-202 method 302, 100 7b not applicable
Shock specified pulse	$\pm(1.0\%+m5\Omega) \Delta R$	MIL-STD-202 method 213, 100g's for 6ms, 10shocks.
Vibration high frequency	$\pm(0.1\%+m5\Omega) \Delta R$	Frequency varied 10 to 2000Hz, 20g peak, 2 dir. 6hrs e
Load Life	$\pm(2.0\%+m5\Omega) \Delta R$	2000hrs at rated power +25°C 1.5hrs [ON] 0.5hrs [OFF]
Bias humidity	$\pm(1.0\%+m5\Omega) \Delta R$	+85°C 85%RH, 10% bias, 1000hrs.
Solderability	95% coverage min.	ANSI J-STD-002

**Curve**

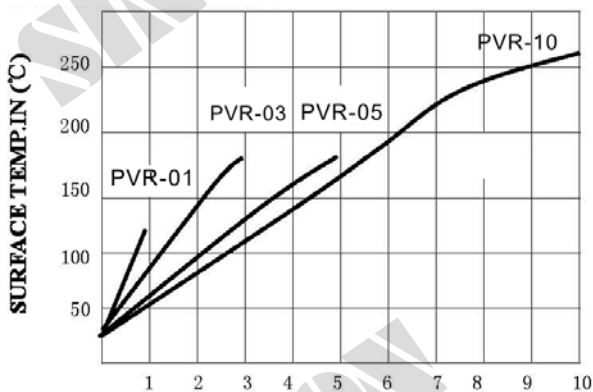
Power Derating Curve.



Characteristic Property

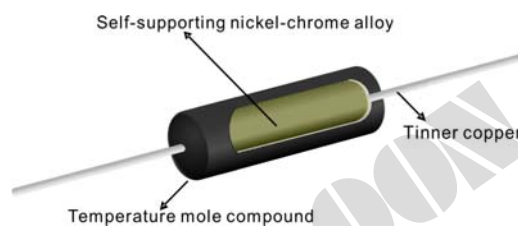


Surface Temperature Rise.



**Material Specifications**

Element:  
Self-supporting nickel-chrome alloy (PVR10 also utilizes manganin)  
Encapsulation:  
Temperature mold compound.  
Terminals:  
Tinned copper.



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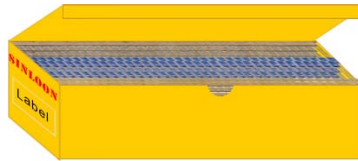
Packing

Power	Type P/N.	Quantity			Quantity	
		Plastic bag	Box	Carton	Tape Box	Carton
1W	PVR-01	200 pcs	2000 pcs	40,000pcs	2000 pcs	40,000pcs
3W	PVR-03	100 pcs	1000 pcs	20,000pcs	1000 pcs	20,000pcs
5W	PVR-05	50 pcs	500 pcs	10,000pcs	500 pcs	10,000pcs
10W	PVR-10	25 pcs	250 pcs	5,000 pcs	250 pcs	5,000 pcs

Plastic bag:



Tape Box



In Box



Carton



※美隆電子產品規格特性參數的改變和更新,不會另行通知。

※Mayloon characteristic parameters of electronic product specification changes or updates without prior notice。