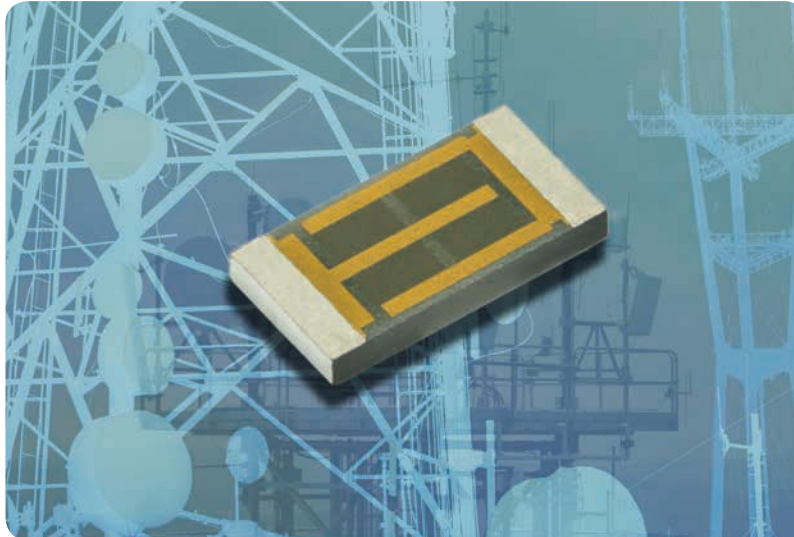




THIN FILM CHIP RESISTOR

PCNM Series

High-Power Aluminum Nitride, Wraparound Surface-Mount, Precision Thin Film Non-Magnetic Chip Resistor



KEY BENEFITS

- High power up to 6 W (2512 case size)
- Non-magnetic properties
- Based on high thermal conductivity aluminum nitride substrate
- Wide resistance range from 2 Ω to 30.1 k Ω
- Available in 25 ppm/ $^{\circ}$ C and 0.1 % tolerance
- Available in 1206 and 2512 case sizes

APPLICATIONS

- Cell phone base stations, amplifiers
- Corrects passive inter-modulation issues in telecommunication circuits
- Industries: telecommunication, military, medical

RESOURCES

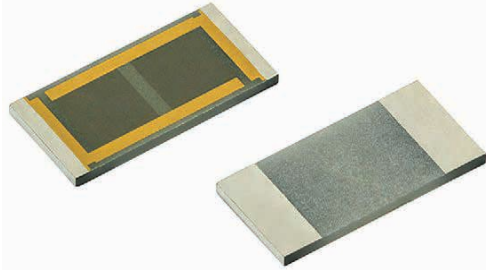
- Datasheet: PCNM Series - www.vishay.com/doc?60130
- For technical questions contact thinfilm@vishay.com



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PCNM series chip resistors are designed on aluminum nitride ceramic substrates with enlarged backside terminations to reduce the thermal resistance between the topside resistor layer and the solder joint on the end user's circuit assembly.

Actual power handling capability is limited by the end user mounting process. As with any high-power chip resistor, the ability to remove the heat is critical to the overall performance of the device.

FEATURES

- High thermal conductivity aluminum nitride substrate
- Power rating up to 6.0 W
- Resistance range from 2 Ω to 30.1 k Ω
- Resistor tolerance to $\pm 0.1\%$
- TCR to ± 25 ppm/ $^{\circ}\text{C}$
- Flame resistant UL 94 V-0

APPLICATIONS

- Power supplies
- Power switching
- Braking system

TYPICAL PERFORMANCE

	ABSOLUTE
TCR	25
TOL.	0.1

STANDARD ELECTRICAL SPECIFICATIONS		
TEST	SPECIFICATIONS	CONDITIONS
Material	Nichrome	-
Resistance Range	2 Ω to 30.1 k Ω	-
TCR: Absolute	25 ppm/ $^{\circ}\text{C}$ (standard) and 100 ppm/ $^{\circ}\text{C}$	-
Tolerance: Absolute	0.1 %, 0.25 %, 0.5 %, 1.0 % and 5.0 %	-55 $^{\circ}\text{C}$ to +150 $^{\circ}\text{C}$
Power Rating: Resistor	0.5 W to 6.0 W ⁽¹⁾	Maximum at +70 $^{\circ}\text{C}$
Stability: Absolute	ΔR 1.0 %	1000 h at +70 $^{\circ}\text{C}$
Voltage Coefficient	< 0.1 ppm/V	-
Working Voltage	75 V to 200 V	-
Operating Temperature Range	-55 $^{\circ}\text{C}$ to +155 $^{\circ}\text{C}$	-
Storage Temperature Range	-55 $^{\circ}\text{C}$ to +155 $^{\circ}\text{C}$	-
Noise	< -30 dB	-
Shelf Life Stability: Absolute	$\pm 0.01\%$	1 year at +25 $^{\circ}\text{C}$

Note

⁽¹⁾ Dependant on component mounting by user.

COMPONENT RATINGS			
CASE SIZE	POWER RATING (mW)	WORKING VOLTAGE (V)	RESISTANCE RANGE (Ω)
1206	2000 ⁽²⁾	200	2 to 30.1K
2512	6000 ⁽²⁾	200	2 to 30.1K

Notes

- 0603 and 0805 case size under engineering qualification.
- ⁽²⁾ Dependant on component mounting by user.