

APC Precision Chip Resistor



- Precision Thin Film Technology
- Wide Resistance Range 1R - 3M
- Precision tolerance down to $\pm 0.01\%$
- TCR as low as $\pm 2\text{ppm}/^\circ\text{C}$
- Tape & Reel packaging



- Standard Electrical Specifications
- Tolerance (Code): $\pm 0.05\%$ (A), $\pm 0.1\%$ (B), $\pm 0.25\%$ (C), $\pm 0.5\%$ (D), $\pm 1\%$ (F)
- TCR (Code): $\pm 25\text{ppm}$ (E), $\pm 50\text{ppm}$ (F)

Type	Power Rating at 70°C	Operating Temp Range	Max Operating Voltage	Max Overload Voltage	Tolerance / Resistance Range					TCR (PPM°C)
					±0.05%	±0.1%	±0.25%	±0.5%	±1%	
APC0201	1/32W	-55 to +155°C	15V	30V	N/A			49.9Ω to 4.99KΩ	±25	
								49.9Ω to 33KΩ	±50	
APC0402	1/16W	-55 to +155°C	25V	50V	49.9Ω to 12KΩ	10Ω to 255KΩ	4.7Ω to 511KΩ		±25	
									±50	
APC0603	1/16W	-55 to +155°C	50V	100V	4.7Ω to 332KΩ	4.7Ω to 1MΩ	1Ω to 1MΩ		±25	
									±50	
APC0805	1/10W	-55 to +155°C	100V	200V	4.7Ω to 1MΩ	4.7Ω to 2MΩ	1Ω to 2MΩ		±25	
									±50	
APC1206	1/8W	-55 to +155°C	150V	300V	4.7Ω to 1MΩ	4.7Ω to 2.49MΩ	1Ω to 2.49MΩ		±25	
APC1210	1/4W								±50	
APC2010	1/4W	-55 to +155°C	150V	300V	4.7Ω to 1MΩ	4.7Ω to 3MΩ	1Ω to 3MΩ		±25	
APC2512	1/2W								±50	

- Special Electrical Specifications
- Tolerance (Code): $\pm 0.01\%$ (T), $\pm 0.05\%$ (A), $\pm 0.1\%$ (B), $\pm 0.25\%$ (C), $\pm 0.5\%$ (D), $\pm 1\%$ (F)
- TCR (Code): $\pm 2\text{ppm}$ (X), $\pm 3\text{ppm}$ (Y), $\pm 5\text{ppm}$ (Z), $\pm 10\text{ppm}$ (B), $\pm 15\text{ppm}$ (A)

Type	Power Rating at 70°C	Operating Temp Range	Max Operating Voltage	Max Overload Voltage	Resistance Range						TCR (PPM°C)
					±0.01%	±0.05%	±0.1%	±0.25%	±0.5%	±1%	
APC0402	1/16W	-55 to +155°C	25V	50V	49.9Ω to 4.99KΩ			N/A			±2, ±3
					49.9Ω to 4.99KΩ						±5
					49.9Ω to 12KΩ		49.9Ω to 60KΩ			±10	
							49.9Ω to 69.8KΩ			±15	
APC0603	1/16W	-55 to +155°C	50V	100V	24.9Ω to 15KΩ			N/A			±2, ±3
					24.9Ω to 15KΩ						±5
					24.9Ω to 100KΩ	4.7Ω to 332KΩ	4.7Ω to 511KΩ			±10, ±15	
APC0805	1/10W	-55 to +155°C	100V	200V	24.9Ω to 30KΩ			N/A			±2, ±3
					24.9Ω to 30KΩ						±5
					24.9Ω to 200KΩ	4.7Ω to 1MΩ			±10, ±15		
APC1206	1/8W	-55 to +155°C	150V	300V	24.9Ω to 49.9KΩ			N/A			±2, ±3
					24.9Ω to 49.9KΩ						±5
					24.9Ω to 499KΩ	4.7Ω to 1MΩ			±10, ±15		
APC1210	1/4W	-55 to +155°C	150V	300V	24.9Ω to 49.9KΩ			N/A			±2, ±3
					24.9Ω to 49.9KΩ						±5
					24.9Ω to 499KΩ	4.7Ω to 1MΩ			±10, ±15		
APC2010	1/4W	-55 to +155°C	150V	300V	24.9Ω to 100KΩ			N/A			±2, ±3
					24.9Ω to 100KΩ						±5
					24.9Ω to 499KΩ	4.7Ω to 1MΩ			±10, ±15		
APC2512	1/2W	-55 to +155°C	150V	300V	24.9Ω to 100KΩ			N/A			±2, ±3
					24.9Ω to 100KΩ						±5
					24.9Ω to 499KΩ	4.7Ω to 1MΩ			±10, ±15		

ARCOL UK Limited,
Threemilestone Ind. Estate,
Truro, Cornwall, TR4 9LG, UK.
T +44 (0) 1872 277431
F +44 (0) 1872 222002
E sales@arcolresistors.com

www.arcolresistors.com

The information contained herein does not form part of a contract and is subject to change without notice. ARCOL operate a policy of continual product development, therefore, specifications may change.

It is the responsibility of the customer to ensure that the component selected from our range is suitable for the intended application. If in doubt please ask ARCOL.

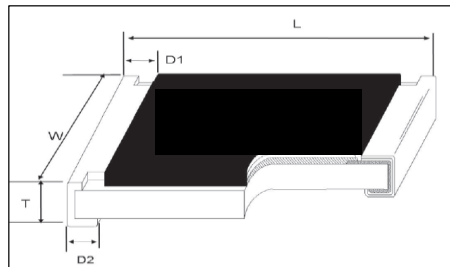
Characteristics

Item	Tol. ≤ 0.05%	Tol. > 0.05%	Method
Short Time Overload	$\Delta R \pm 0.05\%$	$\Delta R \pm 0.02\%$	RCWV*2.5 or Max. Overload Voltage - whichever is lower for 5 secs.
Insulation Resistance	> 1000 MΩ		Apply 100V dc for 1 minute
Endurance	$\Delta R \pm 0.05\%$	$\Delta R \pm 0.02\%$	70 ±2°C RCWV for 1000 hours with 1.5 hrs ON and 0.5 hrs OFF
Thermal Shock	$\Delta R \pm 0.05\%$	$\Delta R \pm 0.025\%$	-55 to +155°C, 100 Cycles
Low Temp Operation	$\Delta R \pm 0.05\%$	$\Delta R \pm 0.2\%$	1 hour, -65°C followed by 45 mins of RCWV

*RCWV (Rated Continuous Working Voltage) = $\sqrt{P \cdot R}$ or Max. Operating Voltage - whichever is lower

Dimensions (mm)

Type	L	W	T	D1	D2
APC0201	0.58 ±0.05	0.29 ±0.05	0.23 ±0.05	0.12 ±0.05	0.15 ±0.05
APC0402	1.00 ±0.05	0.50 ±0.05	0.30 ±0.05	0.20 ±0.05	0.20 ±0.05
APC0603	1.55 ±0.10	0.80 ±0.10	0.45 ±0.10	0.30 ±0.20	0.30 ±0.20
APC0805	2.00 ±0.15	1.25 ±0.15	0.55 ±0.10	0.30 ±0.20	0.40 ±0.20
APC1206	3.05 ±0.15	1.55 ±0.15	0.55 ±0.10	0.42 ±0.20	0.35 ±0.25
APC1210	3.10 ±0.15	2.40 ±0.15	0.55 ±0.10	0.40 ±0.20	0.55 ±0.25
APC2010	4.90 ±0.15	2.40 ±0.15	0.55 ±0.10	0.60 ±0.30	0.50 ±0.25
APC2512	6.30 ±0.15	3.10 ±0.15	0.55 ±0.10	0.60 ±0.30	0.50 ±0.25

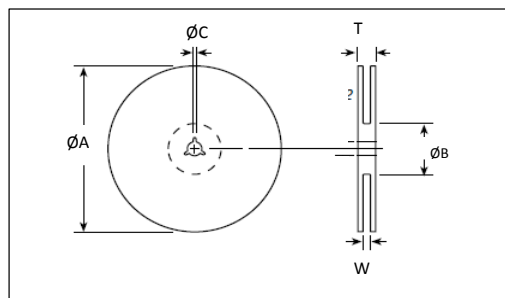


Reel Dimensions (mm)

Size	ØA	ØB	ØC	W	T	Qty Per Reel
0201*	178 ±1.0	60 ±1.0	13.5 ±0.7	9.5 ±1.0	11.5 ±1.0	10,000
0402*	178 ±1.0	60 ±1.0	13.5 ±0.7	9.5 ±1.0	11.5 ±1.0	10,000
0603*	178 ±1.0	60 ±1.0	13.5 ±0.7	9.5 ±1.0	11.5 ±1.0	5,000
0805*	178 ±1.0	60 ±1.0	13.5 ±0.7	9.5 ±1.0	11.5 ±1.0	5,000
1206*	178 ±1.0	60 ±1.0	13.5 ±0.7	9.5 ±1.0	11.5 ±1.0	5,000
1210*	178 ±1.0	60 ±1.0	13.5 ±0.7	9.5 ±1.0	11.5 ±1.0	5,000
2010**	178 ±1.0	60 ±1.0	13.5 ±0.7	13.5 ±1.0	15.5 ±1.0	4,000
2512**	178 ±1.0	60 ±1.0	13.5 ±0.7	13.5 ±1.0	15.5 ±1.0	4,000

* Paper Tape

** Plastic Embossed Tape



Ordering Procedure

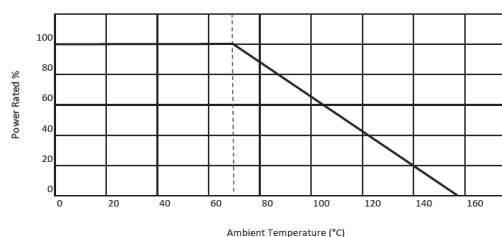
Standard Resistor: Series, Size, Tol Code, Resistance Value, TCR Code

Eg: APC0603A100RB
 100Ω
 ±0.05%
 1/16 watt
 (0603 size)

Tol: ±0.01% (T), ±0.05% (A), ±0.1% (B), ±0.25% (C), ±0.5% (D), ±1% (F)

TCR: ±2ppm (X), ±3ppm (Y), ±5ppm (Z), ±10ppm (B), ±15ppm (A), ±25ppm (E), ±50ppm (F)

Derating Curve



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Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)

Факс: 8 (812) 320-02-42

Электронная почта: org@eplast1.ru

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.