

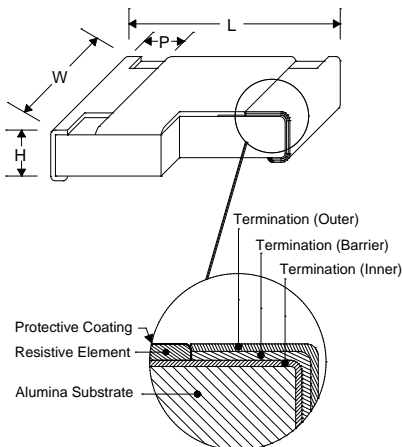


PRC-SERIES

PRECISION SURFACE MOUNT

PRECISION RESISTIVE PRODUCTS, INC.
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- Thin Film
- Standard Industry Case Sizes
0201, 0402, 0603, 0805, 1206, 1210, 2010, 2512
- Power Ratings 1/32W, 1/16W, 1/10W
1/8W, 1/5W, 1/4W, 1/3W, 1/2W & 1W
- Temperature Coefficients
to 2 PPM/°C
- Resistance Tolerances
to 0.01%
- Custom Values to 3
Decimal Places
- Packaging is Tape &
Reel 1,000; 5,000; 10,000 pcs.



Specifications Inches (mm)

Style	Rated Power	Max. CWV	L	W	H	P
PRC 0201	<u>1/32W</u>	15V	0.023 ±0.002 (0.58 ±0.05)	0.011 ±0.002 (0.29 ±0.05)	0.009 ±0.002 (0.23 ±0.05)	0.006 ±0.002 (0.15 ±0.05)
PRC 0402	<u>Y</u>	25V	0.039 ±0.002 (1.00 ±0.05)	0.020 ±0.002 (0.50 ±0.05)	0.012 ±0.002 (0.30 ±0.05)	0.008 ±0.004 (0.20 ±0.10)
PRC 0603	<u>Y,X,M</u>	75V	0.061 ±0.004 (1.55 ±0.10)	0.031 ±0.004 (0.80 ±0.10)	0.018 ±0.004 (0.45 ±0.10)	0.012 ±0.004 (0.30 ±0.10)
PRC 0805	<u>X,W,V</u>	100V	0.079 ±0.006 (2.00 ±0.15)	0.049 ±0.006 (1.25 ±0.15)	0.022 ±0.004 (0.55 ±0.10)	0.016 ±0.008 (0.40 ±0.20)
PRC 1206	<u>W,V,O</u>	150V	0.120 ±0.006 (3.05 ±0.15)	0.061 ±0.006 (1.55 ±0.15)	0.022 ±0.004 (0.55 ±0.10)	0.014 ±0.010 (0.35 ±0.25)
PRC 1210	<u>V,O</u>	200V	0.122 ±0.006 (3.10 ±0.15)	0.094 ±0.006 (2.40 ±0.15)	0.022 ±0.004 (0.55 ±0.10)	0.022 ±0.010 (0.55 ±0.25)
PRC 2010	<u>V,O</u>	200V	0.193 ±0.006 (4.90 ±0.15)	0.094 ±0.006 (2.40 ±0.15)	0.022 ±0.004 (0.55 ±0.10)	0.020 ±0.010 (0.50 ±0.25)
PRC 2512	<u>U,Q,T</u>	200V	0.248 ±0.006 (6.30 ±0.15)	0.122 ±0.006 (3.10 ±0.15)	0.022 ±0.004 (0.55 ±0.10)	0.020 ±0.010 (0.50 ±0.25)

Operating Temperature Range -55°C to +155°C

Note: Standard power ratings are in bold and underlined print.

Temperature Coefficients

T100 = 0±100 PPM/°C TC10 = 0±10 PPM/°C
TC50 = 0±50 PPM/°C TC5 = 0±5 PPM/°C
TC25 = 0±25 PPM/°C TC2 = 0±2 PPM/°C *

Power Ratings

Y	1/16W	V	1/4W
X	1/10W	O	1/3W
W	1/8W	U	1/2W
M	1/6W	Q	3/4W
P	1/5W	T	1W

Refer to Capability Sheet for available ranges.
Contact factory for custom values.

*Contact factory for availability

Resistance Tolerances @ 25°C

0.01% 0.05% 0.1% 0.25% 0.5% 1.0%

How to Order

Sample Part

PRC 0805 TC10 X 56.2R ±0.05%

Resistance Tolerance
Resistance Value
Non-Standard Power Rating Code
Temperature Coefficient
Case Size
Style



DEDICATION TO EXCELLENCE

Add "T" at the end of the Case Size portion of the part number for lead free termination.

TYPICAL RELIABILITY TEST DATA AND SPECIFICATIONS

Characteristic	Test Conditions Test result based on 25ppm 0.1%	Result				Specification
		Value	Max.	Min.	Avg.	
MOISTURE LOAD LIFE	60°C 95%RH Rated voltage for 1½ hours ON, ½ hour OFF. 1000 hours	100 Ω 10 KΩ 100 KΩ	0.027% 0.019% 0.023%	0.003% -0.008% -0.024%	0.014% 0.005% 0.014%	ΔR within ±0.5%
TEMPERATURE CYCLE	-55°C~RT~ +155°C~RT 30 min. ON 3 min. OFF 5 cycles	100 Ω 10 KΩ 100 KΩ	0.036% 0.005% 0.011%	-0.010% 0.002% -0.006%	0.007% 0.000% 0.002%	ΔR within ±0.25%
HIGH TEMPERATURE	175°C No load 1000 hours	100 Ω 10 KΩ 100 KΩ	0.254% 0.263% 0.380%	0.156% 0.130% 0.194%	0.194% 0.158% 0.250%	ΔR within ±0.5%
RANDOM VIBRATION	10~50Hz 3 directions each 2 hours	100 Ω 10 KΩ 100 KΩ	0.008% 0.006% 0.006%	-0.008% -0.001% 0.001%	0.003% 0.002% 0.003%	ΔR within ±0.25% without mechanical damage.
MECHANICAL SHOCK	Acceleration 50G Axis 11 msec. x 3 Total 18 cycles	100 Ω 10 KΩ 100 KΩ	0.008% 0.008% 0.017%	0.002% -0.002% 0.003%	0.005% 0.003% 0.007%	ΔR within ±0.25% without mechanical damage.
RESISTANCE TO SOLDERING HEAT	Solder temperature 275°C for 20 sec. ±1sec.	100 Ω 10 KΩ 100 KΩ	0.061% -0.018% -0.020%	-0.012% -0.044% -0.045%	0.013% -0.024% -0.033%	ΔR within ±0.1%
SOLDERABILITY	Solder temperature 230°C ±5°C for 3 sec. ±1 sec.	100 Ω 10 KΩ 100 KΩ	100% MEET SPECIFICATION			Minimum 95% of the electrode surface covered.
SHORT TIME OVERLOAD	2.5 times to rated voltage for 5 seconds	100 Ω 10 KΩ 100 KΩ	0.012% 0.000% 0.012%	-0.009% -0.018% -0.008%	-0.001% -0.001% 0.000%	ΔR within ±0.25%
HUMIDITY	60°C, 95%RH No load 1000Hour	100 Ω 10 KΩ 100 KΩ	0.083% 0.005% 0.018%	0.002% 0.001% 0.008%	0.027% 0.003% 0.012%	ΔR within ±0.25%
LOAD LIFE	70°C Rated voltage for 1½ hours ON, ½ hour OFF. 1000 hours	100 Ω 10 KΩ 100 KΩ	0.052% 0.017% 0.018%	-0.057% -0.009% -0.001%	0.009% 0.007% 0.007%	ΔR within ±0.5%

Derating Curve

For resistors operated in ambient above 70°C, power dissipation must be derated in accordance with curve in the below chart.

