

# RPC Series — Resistor Pulse Chip

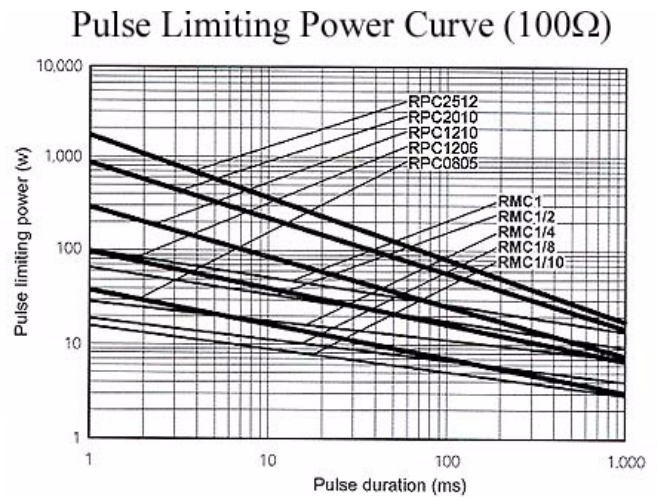
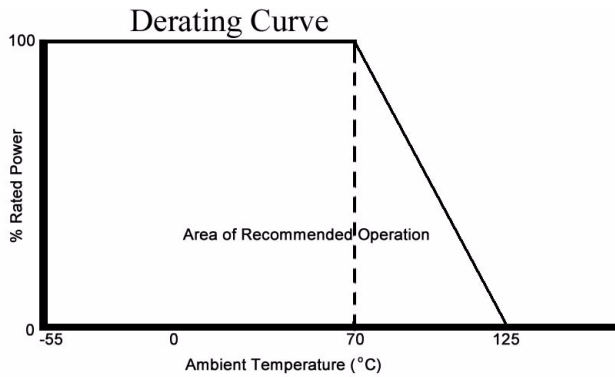
## Features

- Excellent pulse withstanding performance
- Improved working voltage
- Higher anti-surge performance compared with RMC series
- Stability class: 5%
- Broad resistance range
- RoHS compliant/ lead-free available



## Electrical Specifications

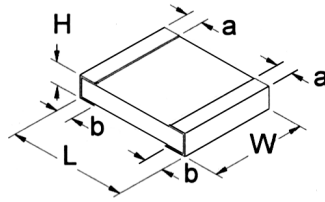
Type	Power Rating (Watts) @ 70°C	Maximum Working Voltage	Isolation Voltage	Resistance Temperature Coefficient	Ohmic Range and Tolerance	
					5%	10%
RPC 0805	0.100	150V	500V	±200 ppm/°C	0.27Ω – 22M	0.27Ω – 22M
RPC 1206	0.125	200V	500V	±200 ppm/°C	0.27Ω – 22M	0.27Ω – 22M
RPC 1210	0.250	200V	500V	±200 ppm/°C	0.27Ω – 22M	0.27Ω – 22M
RPC 2010	0.500	200V	500V	±200 ppm/°C	0.27Ω – 22M	0.27Ω – 22M
RPC 2512	1.000	200V	500V	±200 ppm/°C	0.27Ω – 22M	0.27Ω – 22M



## How to Order

RPC	0805	10M	5%	A																													
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	<table border="1"> <thead> <tr> <th>Code</th> </tr> </thead> <tbody> <tr><td>0805</td></tr> <tr><td>1206</td></tr> <tr><td>1210</td></tr> <tr><td>2010</td></tr> <tr><td>2512</td></tr> </tbody> </table>	Code	0805	1206	1210	2010	2512	<table border="1"> <thead> <tr> <th>Tolerance</th> <th>Values</th> </tr> </thead> <tbody> <tr><td>5%</td><td>E24</td></tr> <tr><td>10%</td><td>E24</td></tr> <tr><td>20%</td><td>E24</td></tr> </tbody> </table>	Tolerance	Values	5%	E24	10%	E24	20%	E24	<table border="1"> <thead> <tr> <th>Code</th> <th>Description</th> <th>SEI Types</th> <th>Pkg Qty</th> </tr> </thead> <tbody> <tr><td>R</td><td>Bulk</td><td>All</td><td>1,000</td></tr> <tr><td>G</td><td>Paper</td><td>RPC 0805, RPC 1206</td><td>5,000</td></tr> <tr><td>A</td><td>Emboss</td><td>RPC 1210, RPC 2010, RPC 2512</td><td>4,000</td></tr> </tbody> </table>	Code	Description	SEI Types	Pkg Qty	R	Bulk	All	1,000	G	Paper	RPC 0805, RPC 1206	5,000	A	Emboss	RPC 1210, RPC 2010, RPC 2512	4,000
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## Mechanical Specifications

Type	L Body Length	W Body Width	H Body Height	a Top Termination	b Bottom Termination	Units
RPC 0805	0.079 ± 0.004 2.00 ± 0.10	0.049 ± 0.004 1.25 ± 0.10	0.021 ± 0.004 0.55 ± 0.10	0.012 ± 0.008 0.30 ± 0.20	0.016 ± 0.008 0.40 ± 0.20	inches mm
RPC 1206	0.126 ± 0.006 3.20 ± 0.15	0.063 ± 0.006 1.60 ± 0.15	0.021 ± 0.004 0.55 ± 0.10	0.012 ± 0.008 0.30 ± 0.20	0.020 ± 0.010 0.50 ± 0.25	inches mm
RPC 1210	0.126 ± 0.006 3.20 ± 0.15	0.098 ± 0.006 2.50 ± 0.15	0.021 ± 0.006 0.55 ± 0.15	0.012 ± 0.008 0.30 ± 0.20	0.020 ± 0.010 0.50 ± 0.25	inches mm
RPC 2010	0.197 ± 0.006 5.00 ± 0.15	0.098 ± 0.006 2.50 ± 0.15	0.021 ± 0.006 0.55 ± 0.15	0.012 ± 0.008 0.30 ± 0.20	0.024 ± 0.008 0.60 ± 0.20	inches mm
RPC 2512	0.248 ± 0.006 6.30 ± 0.15	0.126 ± 0.006 3.20 ± 0.15	0.021 ± 0.006 0.55 ± 0.15	0.012 ± 0.008 0.30 ± 0.20	0.024 ± 0.008 0.60 ± 0.20	inches mm

## Climatic Category

	RPC 2010 & RPC 2512	RPC 0805, RPC 1206, & RPC 1210
Lower Category Temperature	-55°C	-55°C
Upper Category Temperature	+125°C	+155°C
Duration of the Damp heat, Steady-State Test	56 days	56 days

## Performance Characteristics

Test	Test Results	Test Methods (JIS C 520-1:1198)
Voltage Proof	No breakdown or flashover $R \geq 1G$ ohm	Clause 4.7 500Va.c., 60s
Variation of Resistance with Temperature	See ratings table	Clause 4.8 +20°C/ -55°C/ +20°C/ +125°C/ +20°C : RPC 2010 RPC 2512 +20°C/ -55°C/ +20°C/ +155°C/ +20°C : RPC 0805 RPC 1206 RPC 1210
Overload	$\Delta R \leq \pm 1\% + 0.05\Omega$ No visible damage, legible markings	Clause 4.13 The applied voltage shall be 2.5 times of the rated voltage or twice of the limiting element voltage, whichever is the less severe, 2s.
Solderability	In accordance with Clause 4.17.4.5	Clause 4.17 235°C, 2s.
Resistance to Soldering Heat	$\Delta R \leq \pm 1\% + 0.05\Omega$	Clause 4.18 After immersion into the flux, the immersion into solder shall be carried out in Solder bath at 260°C for 5s.
Rapid Change of Temperature	$\Delta R \leq \pm 1\% + 0.05\Omega$ No visible damage	Clause 4.19 Cycle: -55°C/ + 125°C 5 times: RPC 2010 RPC 2512 Cycle: -55°C/ +155°C 5 times: RPC 0805 RPC 1206 RPC 1210
Climatic Sequence	$\Delta R \leq \pm 5\% + 0.10\Omega$ No visible damage	Clause 4.23 Dry/Damp heat (12+12h cycle), first cycle./ Cold/Damp heat (12+12h cycle), remaining cycle./ D.C. Load
Damp Test, Steady State	$\Delta R \leq \pm 5\% + 0.10\Omega$ No visible damage, legible markings	Clause 4.24 40°C, 95% R.H., 56 days, test a) and b) of Clause 4.24.2.1
Endurance @ 70°C	$\Delta R \leq \pm 5\% + 0.10\Omega$ No visible damage	Clause 4.25.1 Rated voltage, 1.5h "ON", 05.h "OFF", 70°C, 1,000h
Endurance at the Upper Category Temperature	$\Delta R \leq \pm 5\% + 0.10\Omega$ No visible damage	Clause 4.25.3 125°C, no load, 1,000h: RPC 2010 RPC 2512 155°C, no load, 1,000h: RPC 0805 RPC 1206 RPC 1210
Adhesion	No visible damage	Clause 4.32 5N, 10s
Bend of Strength of the Face Plating	$\Delta R \leq \pm 1\% + 0.05\Omega$	Clause 4.33 Amount of bend: 3mm RPC 0805 RPC 1206 RPC 1210 Amount of bend: 1mm RPC 2010 RPC 2512