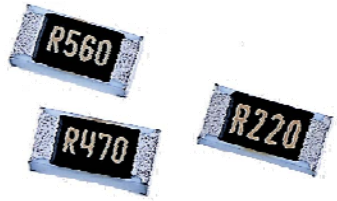
Features:

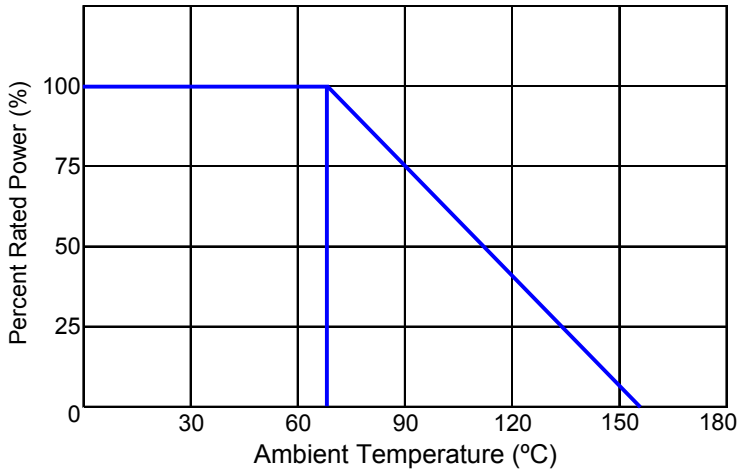
- Excellent pulse withstanding performance
- Broad resistance range
- Higher anti-surge performance compared with RMC Series
- Stability class: 5%
- RoHS compliant / lead-free

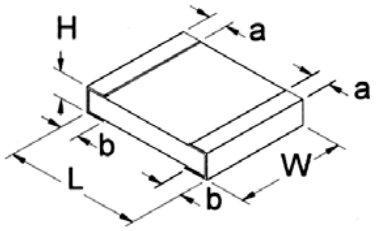


Electrical Specifications				
Type / Code	Power Rating (Watts) @ 70ºC	Maximum Working Voltage (1)	Resistance Temperature Coefficient	Ohmic Range (Ω) and Tolerance 1%, 5%, 10%, 20% (3)
RPC0603	0.1W(2)	50V	±100 ppm/ºC ±200 ppm/ºC	300 - 1M 10 - 299
RPC0805	0.25W(2)	150V	±100 ppm/ºC ±200 ppm/ºC	300 - 20M 1 - 299
RPC1206	0.33W(2)	200V	±100 ppm/ºC ±200 ppm/ºC	20.1 - 20M 1 - 20
RPC1210	0.5W(2)	200V	±100 ppm/ºC ±200 ppm/ºC	20.1 - 20M 1 - 20
RPC2010	0.75W	400V	±100 ppm/ºC ±200 ppm/ºC	20.1 - 20M 1 - 20
RPC2512	1.5W	500V	±100 ppm/ºC ±200 ppm/ºC	20.1 - 20M 1 - 20

(1) Lesser of √PR or maximum working voltage
(2) Higher power ratings available. Contact factory for available resistance ranges, tolerances and TCR's.
(3) 0.5% tolerances may be availabe for some resistance values. Contact factory for availability.

Power Derating Curve:





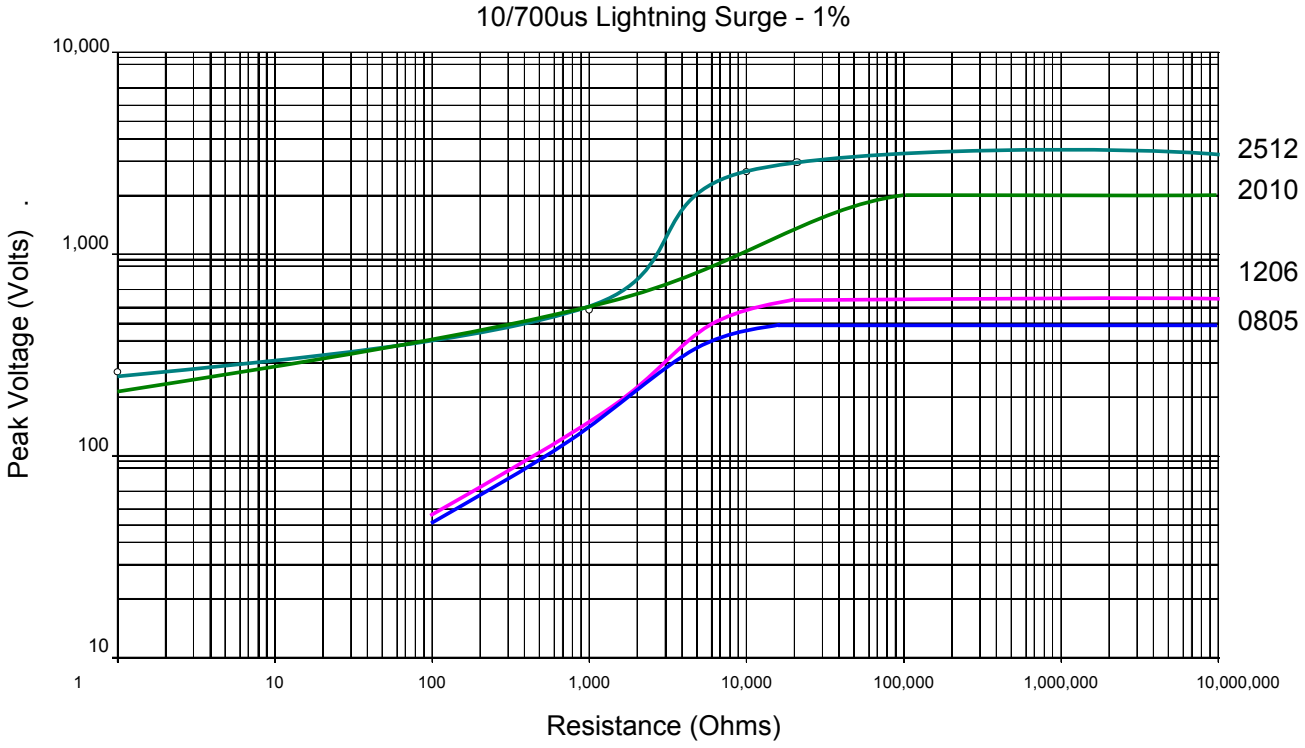
Mechanical Specifications						
Type / Code	L Body Length	W Body Width	H Body Height	a Top Termination	b Bottom Termination	Unit
RPC0603	0.063 ± 0.004 1.60 ± 0.10	0.032 ± 0.004 0.80 ± 0.10	0.018 ± 0.004 0.45 ± 0.10	0.012 ± 0.008 0.30 ± 0.20	0.012 ± 0.008 0.30 ± 0.20	inches mm
RPC0805	0.079 ± 0.004 2.00 ± 0.10	0.049 ± 0.004 1.25 ± 0.10	0.021 ± 0.005 0.55 ± 0.15	0.014 ± 0.01 0.35 ± 0.25	0.016 ± 0.008 0.40 ± 0.20	inches mm
RPC1206	0.126 ± 0.006 3.20 ± 0.15	0.063 ± 0.006 1.60 ± 0.15	0.021 ± 0.004 0.55 ± 0.10	0.019 ± 0.016 0.50 ± 0.40	0.020 ± 0.010 0.50 ± 0.25	inches mm
RPC1210	0.126 ± 0.006 3.20 ± 0.15	0.098 ± 0.006 2.50 ± 0.15	0.021 ± 0.006 0.55 ± 0.15	0.019 ± 0.01 0.50 ± 0.25	0.020 ± 0.010 0.50 ± 0.25	inches mm
RPC2010	0.197 ± 0.008 5.00 ± 0.20	0.098 ± 0.006 2.50 ± 0.15	0.021 ± 0.006 0.55 ± 0.15	0.024 ± 0.02 0.60 ± 0.50	0.020 ± 0.012 0.50 ± 0.30	inches mm
RPC2512	0.250 ± 0.008 6.35 ± 0.20	0.126 ± 0.006 3.20 ± 0.15	0.021 ± 0.006 0.55 ± 0.15	0.024 ± 0.02 0.60 ± 0.50	0.020 ± 0.012 0.50 ± 0.30	inches mm

Performance Characteristics		
Test	Test Methods (JIS C 5201-1 : 1198)	Test Results
Voltage Proof	Clause 4.7 500Va.a., 60s	No breakdown or flashover R ≥ 1G Ohm
Variation of Resistance with Temperature	Clause 4.8 +20ºC/ -55ºC / +20ºC/ +125ºC/ +20ºC: RPC 2010, 2512 +20ºC/ -55ºC/ +20ºC/ +155ºC/ +20ºC: RPC 0603, 0805, 1206, 1210	See ratings table
Overload	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.	ΔR ≤ ± 1% +0.05Ω No visible damage, legible markings
Solderability	Clause 4.17 235ºC, 2s.	In accordance with Clause 4.17.4.5
Resistance to Soldering Heat	Clause 4.18 After immersion into the flux, the immersion into solder shall be carried out in solder bath at 260º for 5s.	ΔR ≤ ± 1% +0.05Ω
Rapid Change of Temperature	Clause 4.19 Cycle: -55ºC/ +125ºC 5 times: RPC 2010, 2512 Cycle: -55ºC/ +155ºC 5 times: RPC 0603, 0805, 1206, 1210	ΔR ≤ ± 1% +0.05Ω No visible damage
Climatic Sequence	Clause 4.23 Dry/Damp heat (12+12h cycle), first cycle/ Cold/Damp heat (12+12h cycle), remaining cycle / D.C. Load	ΔR ≤ ± 5% +0.1Ω No visible damage
Damp Test, Steady State	Clause 4.24 40ºC, 95% R.H., 56 days, test a) and b) of Clause 4.24.2.1	ΔR ≤ ± 5% +0.1Ω No visible damage, legible markings
Endurance @ 70ºC	Clause 4.25.1 Rated voltage, 1.5h "ON", 0.5h "OFF", 70ºC, 1,000h	ΔR ≤ ± 5% +0.1Ω No visible damage
Endurance at the Upper Category Temperature	Clause 4.25.3 125ºC, no load, 1.000h: RPC 2010, 2512 155ºC, no load, 1.000h: RPC 0603, 0805, 1206, 1210	ΔR ≤ ± 5% +0.1Ω No visible damage
Adhesion	Clause 4.32 5N, 10s	No visible damage
Bend of Strength of the Face Plating	Clause 4.33 Amount of bend: 3mm RPC 0603, 0805, 1206, 1210 Amount of bend: 1mm RPC 2010, 2512	ΔR ≤ ± 1% +0.05Ω

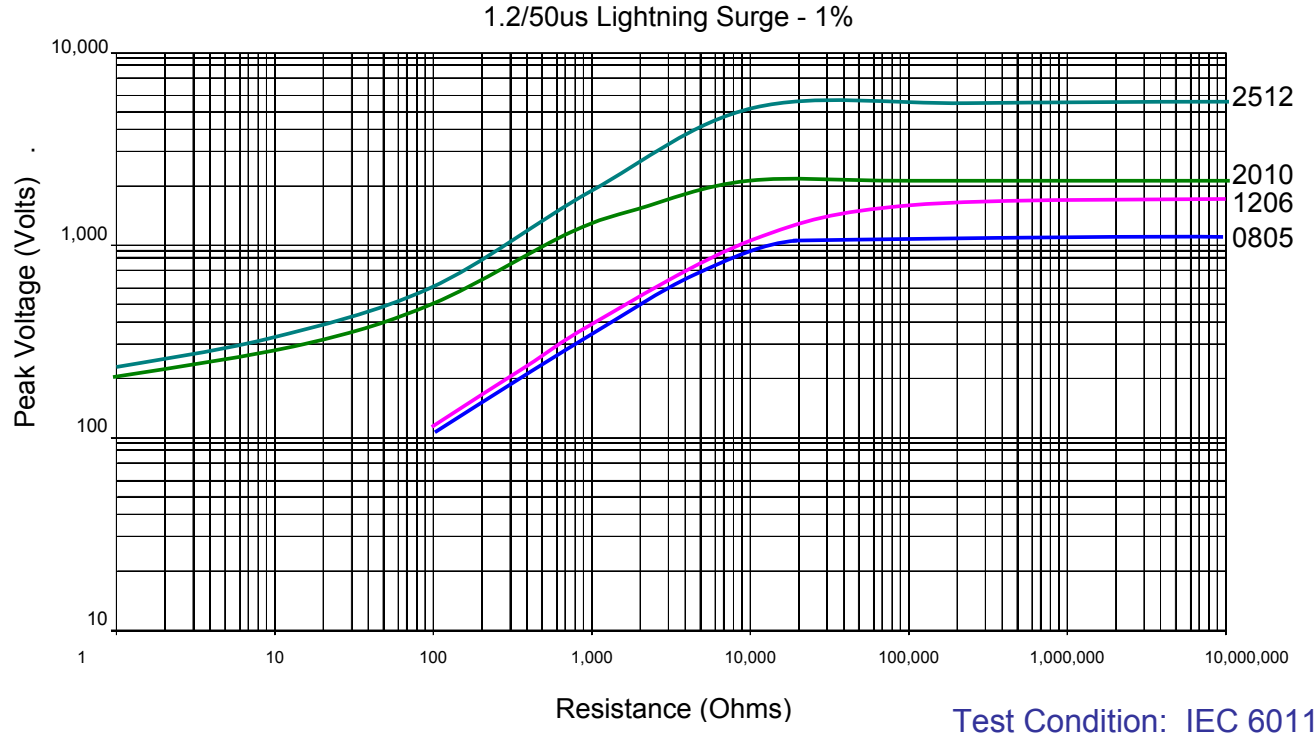
Operating Temperature Range: -55ºC to +155ºC

Lightning Surge

Resistors are tested in accordance with IEC 60115-1 using both 1.2/50us and 10/700 pulse shapes. The limit of acceptance is a shift in resistance of less than 1% from the initial value.



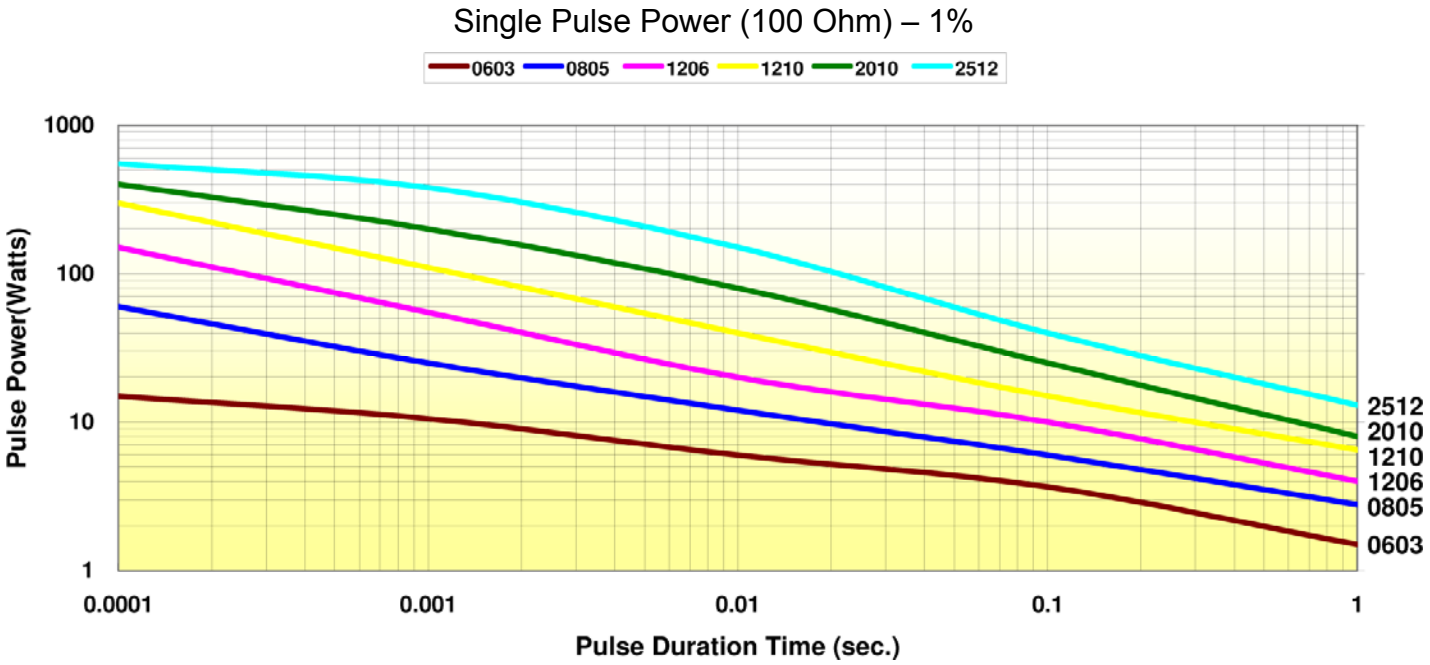
Test Condition: IEC 60115-1



Test Condition: IEC 60115-1

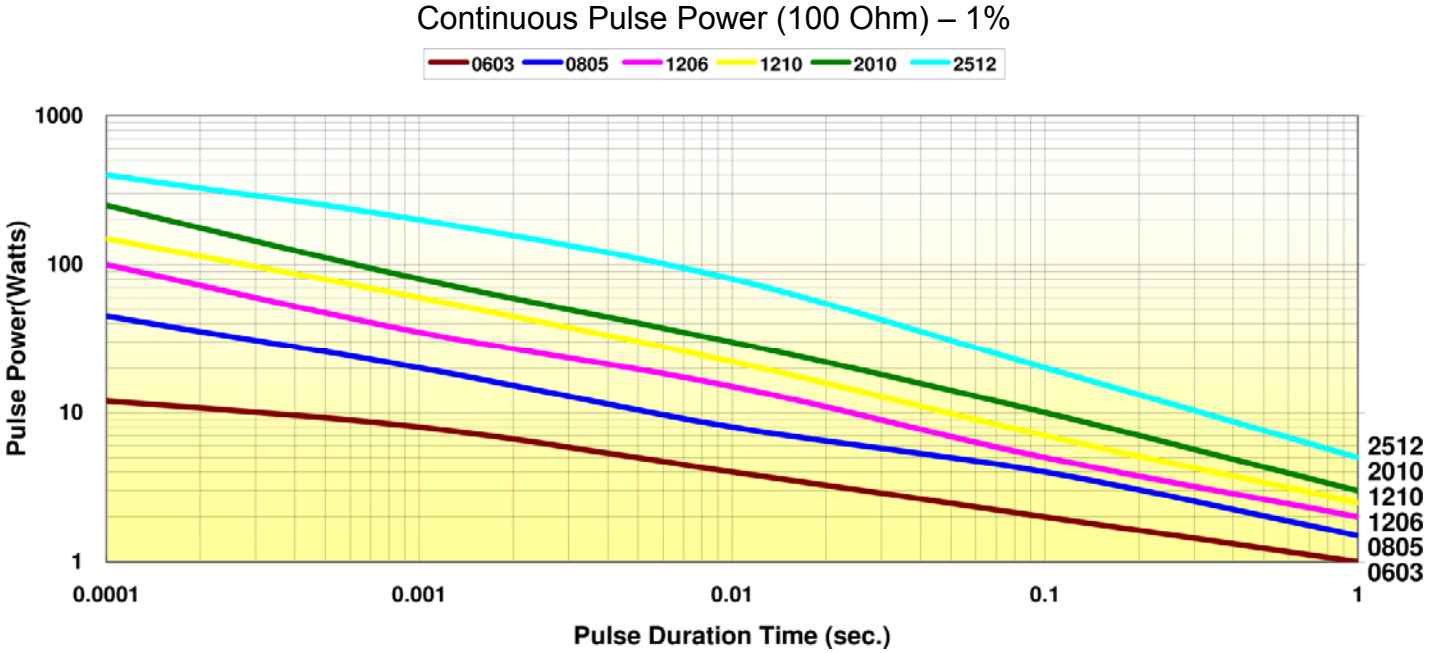
Pulse Withstand Capacity

The single impulse graph is the result of 50 impulses of rectangular shape applied at one minute intervals. The limit of acceptance was a shift in resistance of less than 1% from the initial value. The power applied was subject to the restrictions of the maximum permissible impulse voltage graph shown.

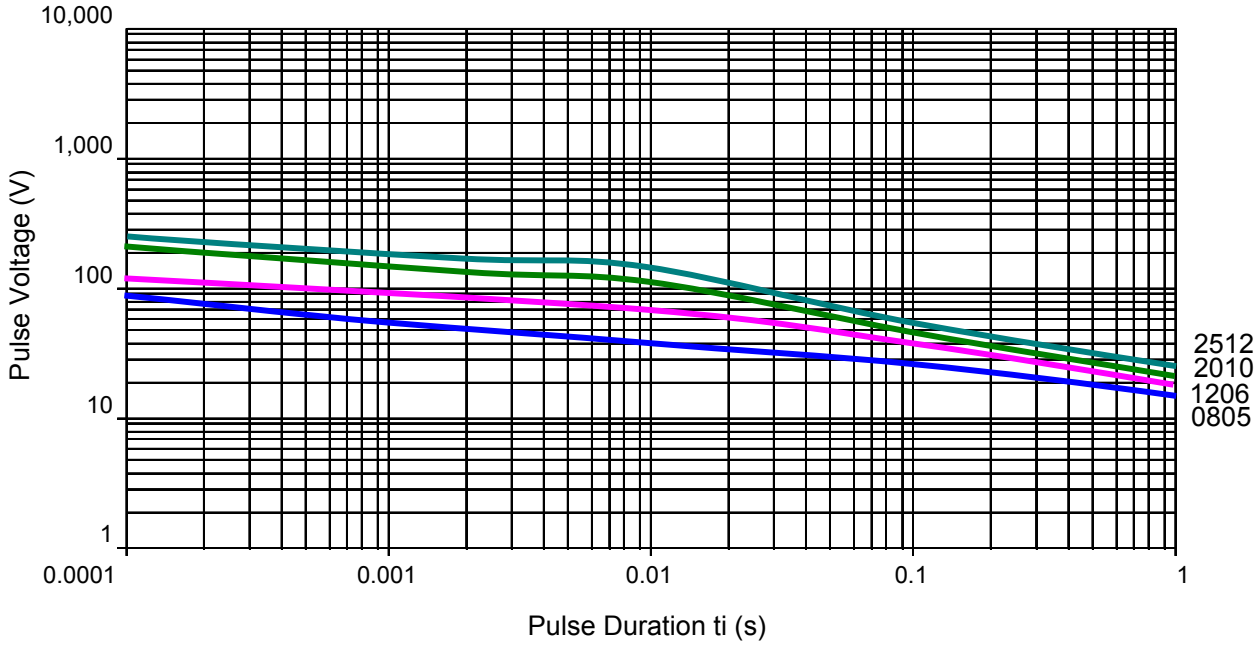


Continuous Pulse

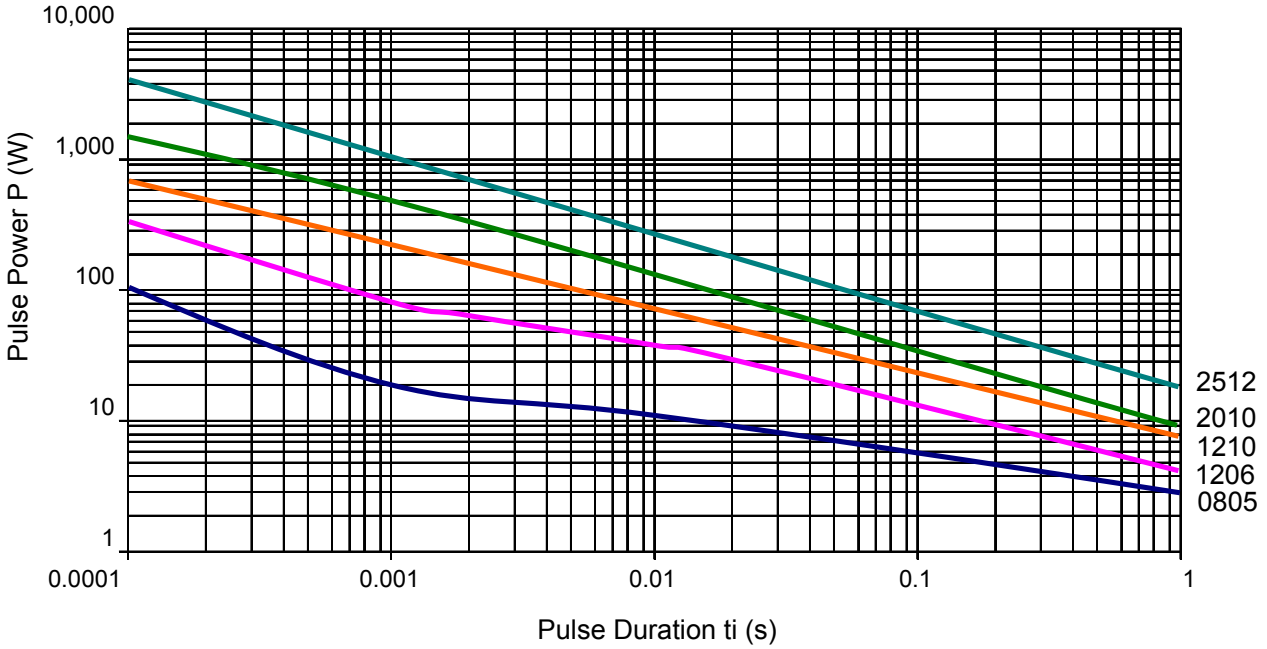
The continuous load graph was obtained by applying repetitive rectangular pulses where the pulse period was adjusted so that the average power dissipated in the resistor was equal to its rated power at 70ºC. Again the limit of acceptance was a shift in resistance of less than 1% from the initial value.



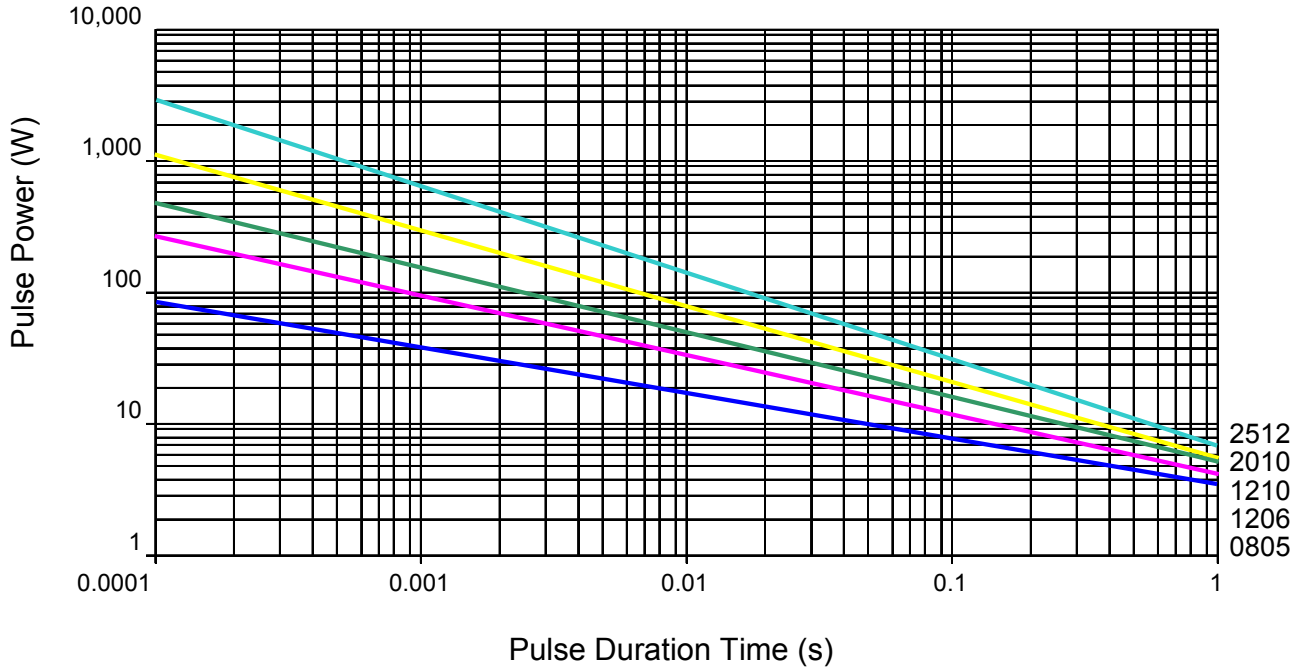
Single Pulse Voltage (100 Ohm) – 1%



Single Pulse Power (100 Ohm) – 5%



Continuous Pulse Power (100 Ohm) – 5%



How to Order

1	2	3	4	5	6	7	8	9	10	11	12	13
R	P	C	0	8	0	5	J	T	1	0	M	0

Product Series	
RPC	Pulse Withstanding

Size	Power
0603	0.1W
0805	0.25W
1206	0.33W
1210	0.5W
2010	0.75W
2512	1.5W

Tolerance		
Code	Tol	Value
F	1%	E96
J	5%	E24
K	10%	
M	20%	

Packaging			
Code	Description	Size	Quantity
T	7" Reel Paper Tape	0603 0805 1206 1210	5,000
	7" Reel Plastic Tape	2010 2512	4,000
G	10" Reel Paper Tape	0805 1206	10,000

Resistance Value
Four characters with the multiplier used as the decimal holder.
300 ohm = 300R 10.2 Kohm = 10K2 1 Mohm = 1M00

Legacy Part Number (before January 3, 2011):

SEI Type	Code	Nominal Resistance	Tolerance	Packaging
RPC	0805	10M	5%	R

Type	Description
RPC	Pulse Withstanding

Code	Wattage
0603	0.1W
0805	0.25W
1206	0.33W
1210	0.5W
2010	0.75W
2512	1.5W

Tolerance	Values
1%	E96
5%	E24
10%	
20%	

SEI Types	Pkg Qty	Description	Code
0603, 0805, 1206, 1210	5,000	7" reel - paper tape	R
0805, 1206	10,000	10" reel - paper tape	G
2010, 2512	4,000	7" reel - plastic tape	R