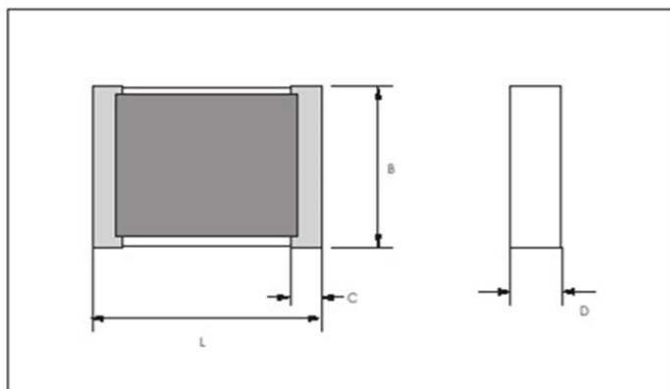




## Construction



## Features

- Chip resistors in thick film
- Contact areas Nickel-barrier/tinned
- RF-versions with air-abrasive trimming
- Improved pulse power rating untrimmed

## Applications

- Computers
- Telecom and wireless
- Meters and instruments
- Electrical devices

## Reference Standards

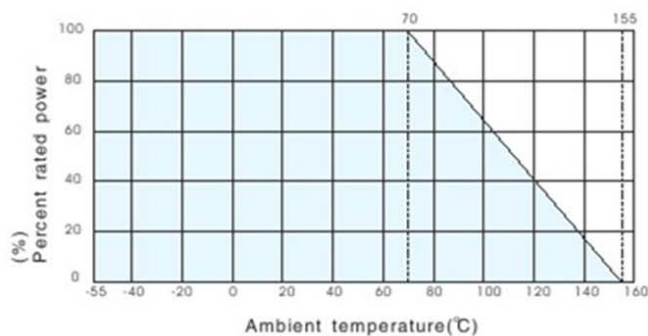
Q/DRT004—2009

## Dimensions(mm)

Type	L	B	D	C
1210	3.2 <sup>+0.2/-0.05</sup>	2.5 <sup>+0.2/-0.05</sup>	0.5 <sup>+0.2/-0.1</sup>	0.8 <sup>+0.2</sup>
1216	3.2 <sup>+0.2/-0.05</sup>	4.1 <sup>+0.2/-0.05</sup>	0.5 <sup>+0.2/-0.1</sup>	0.8 <sup>+0.2</sup>
2010	5.1 <sup>+0.2/-0.05</sup>	2.5 <sup>+0.2/-0.05</sup>	0.6 <sup>+0.2/-0.1</sup>	1.2 <sup>+0.2</sup>
2040	5.1 <sup>+0.2/-0.05</sup>	10.2 <sup>+0.2/-0.05</sup>	0.6 <sup>+0.2/-0.1</sup>	1.2 <sup>+0.2</sup>
2512	6.3 <sup>+0.2/-0.05</sup>	3.5 <sup>+0.2/-0.05</sup>	0.6 <sup>+0.2/-0.1</sup>	0.9 <sup>+0.2</sup>
4020	10.2 <sup>+0.2</sup>	5.1 <sup>+0.2</sup>	0.6 <sup>+0.2/-0.1</sup>	0.9 <sup>+0.2</sup>

L=Length, B=Width, D=Thickness,  
C=Width of wraparound ( in mm )

## Derating Curve



## Technical Specifications

Type	Power rating P <sub>70</sub> (W) <sup>1)</sup>	Working voltage(V)		Resistance ranges/Tolerances/TCR(PPM/°C) <sup>2)</sup>			
		trimmed	untrimmed	0.1R-1R	1R-100R	100R-100K	100K-100M
1210	0.35	200	600	TC250 5/10/20%	TC100/250 1/.../20%	TC50/100 1/.../20%	TC50/100 1/.../20%
1216	0.5	200	600	TC250 5/10/20%	TC100/250 1/.../20%	TC50/100 1/.../20%	TC50/100 1/.../20%
2010	0.5	250	900	TC250 5/10/20%	TC100/250 1/.../20%	TC50/100 1/.../20%	TC25/50/100 1/.../20%
2040	1.5	250	900	TC250 5/10/20%	TC100/250 1/.../20%	TC50/100 1/.../20%	TC25/50/100 1/.../20%
2512(M)	1.0	300(1000)	1200(2000)	TC250 5/10/20%	TC100/250 1/.../20%	TC50/100 0.5/.../20%	TC25/50/100 1/.../20%
4020(M)	1.5	500(4000)	1500(6000)	TC250 5/10/20%	TC100/250 1/.../20%	TC50/100 0.5/.../20%	TC25/50/100 1/.../20%

<sup>1)</sup>At continuous power dissipation the dimensions of solder-pads have to secure sufficient heat-conduction.

<sup>2)</sup>TC25/50: Temperature range +25°C~+125°C

Zero-Ohm-Jumper: < 50mΩ TCR max. +4000PPM/°C

M at 2512/4020: Meander structure with higher working voltage in bracket.

Higher power dissipation, other sizes and specifications on request.

## Performance

Temperature range	Climatic category acc.to IEC 60068	Solderability acc.IEC60068-2-58	Max.Soldering temperature acc.IEC60068-2-58
-55°C~155°C	55/155/56	235°C 2s	260°C 10s

Long term stability	Storage 125°C/1000h	Storage 155°C/1000h	Load P <sub>70</sub> /70°C/1000h	Short term overload	Damp heat(56d/40°C/96%)
10R-100M	< 0.5%	< 1%	< 1%	< 0.25%	< 0.5%
< 10R	< 1%	< 2%	< 2%	< 0.5%	< 1%

Data not specified according to CECC40401-802

## How To Order

### Example

CRW	1210	0.35W	100KΩ	± 5%	± 100PPM	tape/bag
Type	Style	Power	Nominal Value	Tolerance	TCR	Packaging
CRW	1216 2010 2040 2512 4020	0.35W 0.5W 1.0W 1.5W	100KΩ	± 0.5% ± 1% ± 5% ± 10% ± 20%	± 50PPM ± 100PPM ± 250PPM	tape bag

If no requirements for TCR and taping, the standard TCR (highest value in table) will be supplied and packaging is bulk.