



**THE DATASHEET OF  
RCS1608F1621CS**

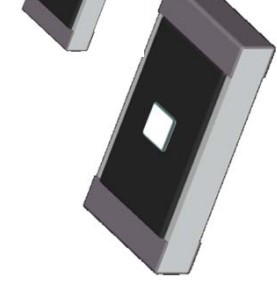


# Anti-Sulfur Thick Film Chip Resistors

- 0603(0201), 1005(0402), 1608(0603), 2012(0805), 3216(1206),  
3225(1210), 5025(2010), 6432(2512)

## ■ Features

- Small, thin and lightweight
- High reliability
- Stable in Sulfur Atmosphere (Anti-sulfur)
- Suitable size and package for surface mount assembly
- RoHS Compliant.



## ■ Part Number System

RCS	
Type	
RCS	Anti-Sulfur chip resistor

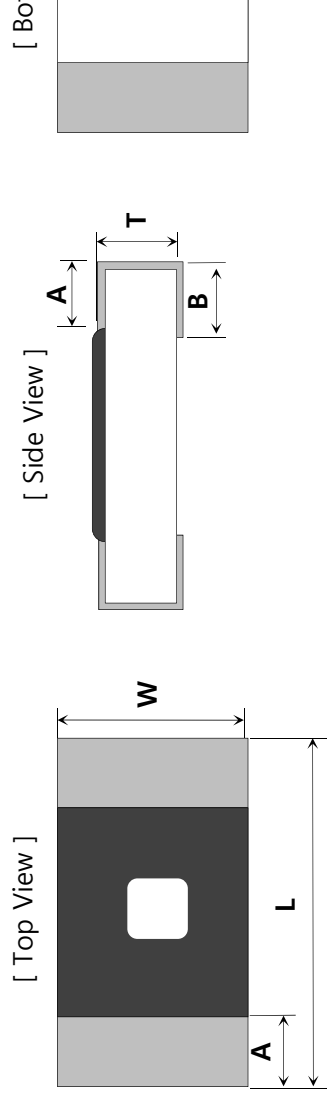
1005	
Size : mm (inch)	
0603	0.6×0.3mm (0201)
1005	1.0×0.5mm (0402)
1608	1.6×0.8mm (0603)
2012	2.0×1.2mm (0805)
3216	3.2×1.6mm (1206)
3225	3.2×2.5mm (1210)
5025	5.0×2.5mm (2010)
6432	6.4×3.2mm (2512)

J	
Tolerance	
F	±1%
G	±2%
J	±5%

\* Jumper : 'J'

150	
Resistance Val	
- 3-digit coding S (E-24 series)	
- 4-digit coding S (E-96 series)	
- Jumper : '00'	

## ■ Structure and Dimensions



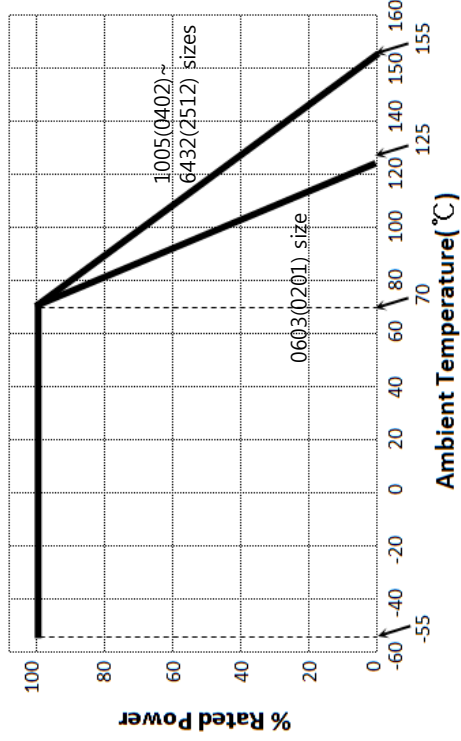
Size (mil)	L	W	T	A
RCS0603(0201)	0.60±0.03	0.30±0.03	0.23±0.03	0.15±0.05
RCS1005(0402)	1.00±0.05	0.50±0.05	0.35±0.05	0.20±0.10
RCS1608(0603)	1.60±0.10	0.80±0.10	0.45±0.10	0.30±0.20
RCS2012(0805)	2.00±0.20	1.25±0.15	0.55±0.10	0.40±0.20
RCS3216(1206)	3.20±0.20	1.60±0.15	0.55±0.10	0.45±0.20
RCS3225(1210)	3.20±0.20	2.55±0.20	0.55±0.10	0.45±0.20
RCS5025(2010)	5.00±0.20	2.50±0.20	0.55±0.10	0.60±0.20
RCS6432(2512)	6.30±0.20	3.20±0.20	0.55±0.10	0.60±0.20

## ■ Applications and Ratings

Type	Size (mil)	Rated Power [W]	Rated Voltage [V]	Max Working Voltage [V]	Tolerance [%]	Resistance Range [Ω]	T.C. [ppm/°C]
RCS0603	0201	1/20	$\sqrt{P \times R}$ P : Rated Power(W) R : Resistance(Ω)	25	±1(F) ±5(J)	1 ~ 10M	1~9.9Ω : 10~10MΩ
RCS1005	0402	1/16		50	±0.5(D) ±1(F) ±5(J)	1 ~ 10M	1~9.9Ω : 10~10MΩ
RCS1608	0603	1/10		50			
RCS2012	0805	1/8		150			
RCS3216	1206	1/4		200			
RCS3225	1210	1/3		200			
RCS5025	2010	2/3		200			
RCS6432	2512	1		200			

• Please contact our sales representatives or engineers for other specifications

## ■ Power Derating Curve



## ■ Rated Voltage

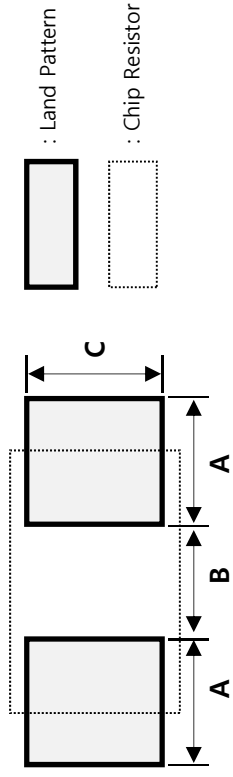
$$V = \sqrt{P \times R}$$

E : Rated Voltage  
 P : Rated Power  
 R : Resistance

## ■ Jumper Ratings

Type	Rated Current
0603	0.5
1005, 1608	1
2012, 3216, 3225, 5025, 6432	2

## ■ Standard Soldering Pad Dimensions




Size (mil)	Reflow Soldering		
	A	B	2A + B
RCS0603(0201)	0.37	0.28	1.02
RCS1005(0402)	0.60	0.50	1.70
RCS1608(0603)	0.80	0.80	2.40
RCS2012(0805)	0.90	1.40	3.20
RCS3216(1206)	1.30	1.80	4.40
RCS3225(1210)	1.30	1.80	4.40
RCS5025(2010)	1.40	3.30	6.10
RCS6432(2512)	1.40	4.60	7.40

## ■ Performance Characteristics

ITEM	Requirements Specification	Test (JIS)
Resistance	Within the specified tolerance	JIS C 5201-1 4.5
Temp. Characteristic	Within the specified T.C.R	JIS C 5201-1 4.8 +20°C → -55°C / +
Short time Overload	$\Delta R < \pm 1\% + 0.1\Omega$	JIS C 5201-1 4.13 Rated Voltage $\times 2.5$
Solderability	Immersed over 95%	JIS C 5201-1 4.17 Rosin Ethanol (25% 245+5/-0°C, 2 $\pm$ 0.5
Resistance to Solder Heat	$\Delta R < \pm 1\% + 0.1\Omega$	JIS C 5201-1 4.18 260 $\pm$ 5°C, 10 $\pm$ 1 sec
Temp. Cycle	$\Delta R < \pm 1\% + 0.1\Omega$	JIS C 5201-1 4.19 -55°C ↔ +125°C, 1
Moisture Resistance	$\Delta R < \pm 3\% + 0.1\Omega$	JIS C 5201-1 4.24 40 $\pm$ 2°C, 90~95%RH
Load Life	$\Delta R < \pm 3\% + 0.1\Omega$	JIS C 5201-1 4.25 Rated Voltage, 70 $\pm$ 90mins ON, 30min
High Temp. Exposure	$\Delta R < \pm 3\% + 0.1\Omega$	JIS C 5201-1 4.25.3 155 $\pm$ 2°C, 1,000 <sup>+48h</sup>
Flower of Sulfur (FOS)	$\Delta R < \pm 1\% + 0.1\Omega$	105°C, FoS, 720 <sup>+2h</sup>

※ The reliability test condition can be replaced by the corresponding accelerated test condition.

 Product specifications included in the specifications are effective as of March 01, 2015.

Please be advised that they are standard product specifications for reference only.

We may change, modify or discontinue the product specifications without notice at any time.

So, you need to approve the product specifications before placing an order.



Should you have any question regarding the product specifications,

please contact our sales personnel or application engineers.

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