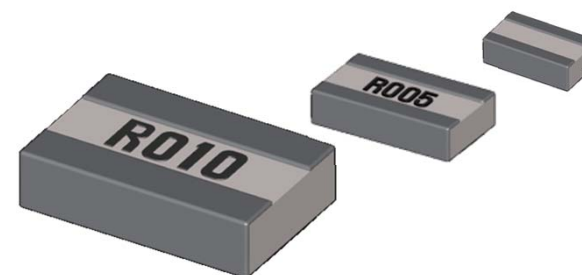


Thick Film Wide Terminal Type Current Sensing Resistor (RJ Series)

- 0816(0306), 1220(0508), 1632(0612), 2037(0815), 3264(1225)

■ Features

- Current Sensing Resistor
- Very low resistance with high precision reliability.
- High Power & Low T. C. R
- Long-Side Terminal
- Stable in Sulfur Atmosphere (Sulfur Resistant)
- 100% Lead Free Component.
- EU RoHS Compliant.



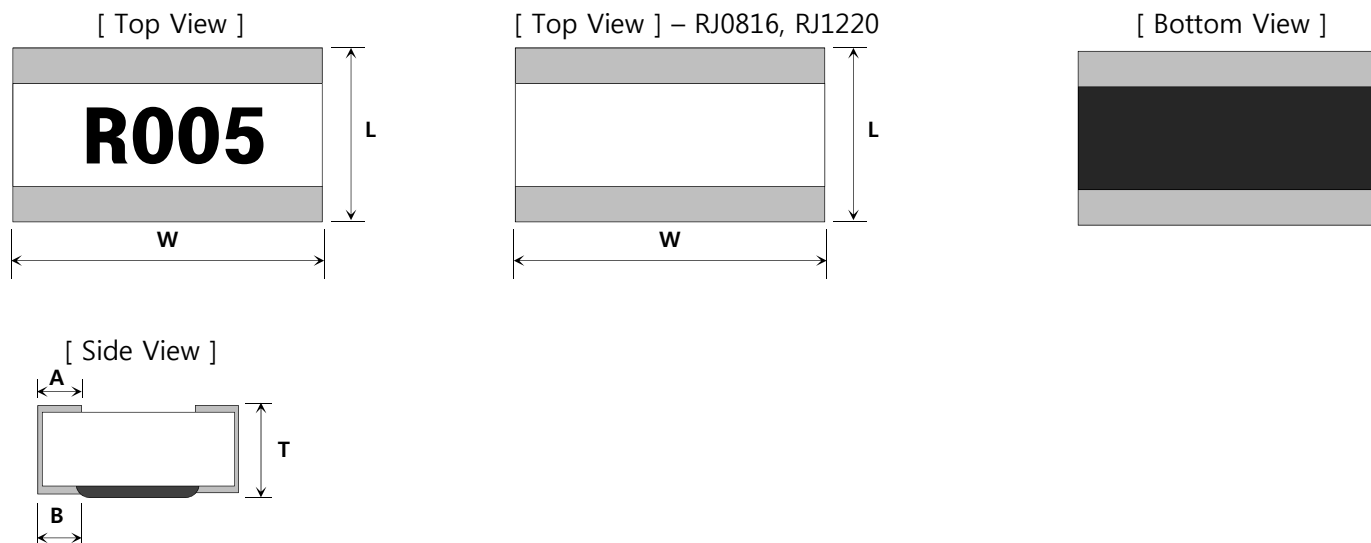
■ Part Number System

RJ		1632		F		R005		CS	
Type		Size : mm (inch)		Tolerance		Resistance Value		Packing Type	
RJ	Wide Terminal thick film chip resistor	* 0816	0.8×1.6mm (0306)	F	±1%	-4-digit coding System (E-24 series) •R005 : 0.005Ω= 5mΩ •R010 : 0.010Ω=10mΩ		CS	7" reel
		1220	1.2×2.0mm (0508)	G	±2%			ES	10" reel
		1632	1.6×3.2mm (0612)	J	±5%			AS	13" reel
		2037	2.0×3.7mm (0815)						
		* 3264	3.2×6.4mm (1225)						

* 0816(0306) and 3264(1225) sizes are under development

Thick Film Wide Terminal Type Current Sensing Resistor (RJ)

■ Structure & Dimensions



[Unit : mm]

Size (mil)	L	W	T	A	B	Unit Weight
* RJ0816 (0306)	0.80±0.10	1.60±0.10	0.45±0.15	0.25±0.15	0.30±0.15	2.3mg
RJ1220 (0508)	1.25±0.10	2.00±0.10	0.55±0.15	0.30±0.15	0.35±0.15	5mg
RJ1632 (0612)	1.60±0.15	3.20±0.15	0.55±0.15	0.35±0.20	0.40±0.20	10mg
RJ2037 (0815)	2.00±0.15	3.75±0.15	0.55±0.15	0.45±0.20	0.55±0.20	15mg
* RJ3264 (1225)	3.20±0.20	6.40±0.20	0.55±0.15	0.60±0.20	0.60±0.20	40mg

* 0816(0306) and 3264(1225) sizes are under development

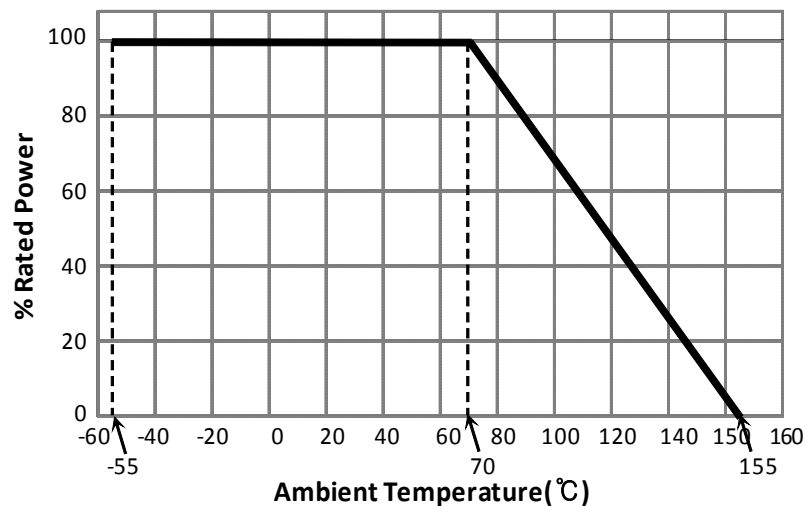
Thick Film Wide Terminal Type Current Sensing Resistor (RJ)

■ Application Characteristics

Type mm(mil)	Power Rating [W]	Tolerance [%]	Resistance Range [Ω]	T.C.R * [ppm/°C]	Working Temp. [°C]
* RJ0816 (0306)	1/2(0.5)	F(±1), J(±5)	0.005 ~ 0.02	±100	-55°C ~ +155°C
RJ1220 (0508)	1	F(±1), J(±5)	0.005 ~ 0.02		
	1/2(0.5)		0.021 ~ 0.05	-200 ~ 0	
RJ1632 (0612)	1	F(±1), J(±5)	0.005 ~ 0.02	±100	
	3/4(0.75)		0.021 ~ 0.05	-200 ~ 0	
RJ2037 (0815)	1	F(±1), J(±5)	0.005 ~ 0.02	±100	
* RJ3264 (1225)	2	F(±1), J(±5)	0.005 ~ 0.02		

* 0816(0306) and 3264(1225) sizes are under development

■ Power Derating Curve



■ Rated Voltage

The rated voltage shall be determined by the following expression

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

$$\bullet I = \sqrt{P / R}$$

V : Rated Voltage (V)

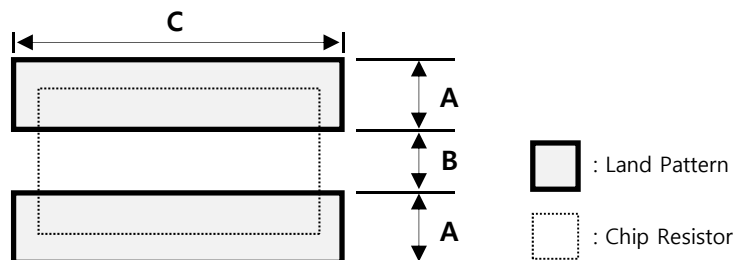
I : Rated Current (I)

P : Rated Power (W)

R : Resistance Value (Ω)

Thick Film Wide Terminal Type Current Sensing Resistor (RJ)

■ Standard Soldering Pad Dimensions



[Unit : mm]

TYPE (mil)	Reflow Soldering			
Dimension	A	B	2A + B	C
* RJ0816 (0306)	0.5	0.3	1.3	1.6
RJ1220 (0508)	0.7	0.4	1.8	2.0
RJ1632 (0612)	1.1	0.6	2.8	3.3
RJ2037 (0815)	1.4	1.2	4.0	3.8
* RJ3264 (1225)	2.0	1.6	5.6	6.5

* 0816(0306) and 3264(1225) sizes are under development

Thick Film Wide Terminal Type Current Sensing Resistor (RJ)

■ Performance Characteristics

ITEM	Requirements Specification	Test Conditions (JIS C 5201-1)
	Resistors	
Resistance	Within the specified tolerance	JIS C 5201-1 4.5
Temperature Characteristic	Within the specified T.C.R	JIS C 5201-1 4.8 +20°C → -55°C / +20°C → +125°C
Short time Overload	$\Delta R < \pm(1\%+0.0005)\Omega$	JIS C 5201-1 4.13 Rated Voltage×2.5, 5sec
Solderability	Immersed over 95%	JIS C 5201-1 4.17 Rosin Ethanol (25%WT) 245+5/-0°C, 2±0.5 sec
Resistance to Solder Heat	$\Delta R < \pm(1\%+0.0005)\Omega$	JIS C 5201-1 4.18 260±5°C, 10±1 sec
Temperature Cycle	$\Delta R < \pm(1\%+0.0005)\Omega$	JIS C 5201-1 4.19 -55°C ↔ +155°C, 100 cycle
Moisture Resistance	$\Delta R < \pm(3\%+0.0005)\Omega$	JIS C 5201-1 4.24 40±2°C, 90~95%RH, 1000 ⁺⁴⁸ hours
Load Life	$\Delta R < \pm(3\%+0.0005)\Omega$	JIS C 5201-1 4.25 Rated Voltage, 70±2°C, 1000 ⁺⁴⁸ hours 90mins ON, 30mins OFF
High Temp. Exposure	$\Delta R < \pm(3\%+0.0005)\Omega$	JIS C 5201-1 4.25.3 155±2°C, 1000 ⁺⁴⁸ hours
Flower of Sulfur (FOS)	$\Delta R < \pm(1\%+0.0005)\Omega$	105°C, FoS, 720 ⁺² hours

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

Thick Film Wide Terminal Type Current Sensing Resistor (RJ)



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.