Metal thin film chip resistors
(high voltage operation)

■RGV series **AEC-Q200 Compliant**

Lead free Halogen free RoHS Compliance

Features

- High voltage operation is possible because the limiting element voltage is high. (RGV3225 1000V)
- Long term stability with inorganic passivation.
- Resistance tolerance : ±0.1% , TCR : ±25 ppm/℃
- Thin film structure enabling low noise and anti-sulfur

Applications

- Automotive electronics
- Industrial measurement instrumentation, Industrial machines.
- High voltage circuit and equipment.

◆Part numbering system

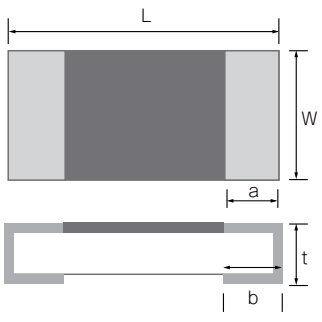
RGV 3216 P - 2004 - B - T5

- RGV — Series code
- 3216 — Size : RGV1608, RGV2012, RGV3216, RGV3225
- P — Temperature coefficient of resistance
- 2004 — Nominal resistance value(all 4 digit)
- B — Resistance tolerance
- T5 — T1(1,000pcs) T5(5,000pcs)

◆Electrical Specification

Type	Power ratings	Temperature coefficient of resistance (ppm/℃)	Resistance range(Ω) Resistance tolerance ±0.1%(B)	±0.5%(D)	Maximum voltage	Resistance value series	Operating temperature	Packaging quantity
RGV1608	1/10W	±25(P)	100KΩ≦R≦1MΩ		200V	E-24, E-96	-55℃~ 155℃	T1 T5
		±50(Q)						
RGV2012	1/8W	±25(P)	100KΩ≦R≦2MΩ		300V			
		±50(Q)						
RGV3216	1/4W	±5(V)	2MΩ		700V			
		±25(P)	120KΩ≦R≦3MΩ					
		±50(Q)						
RGV3225	1/3W	±25(P)	120KΩ≦R≦4.3MΩ		1000V			
		±50(Q)						

◆Dimensions



Type	Size (inch)	L	W	a	b	t
RGV1608	0603	1.60±0.20	0.80±0.20	0.30±0.20	0.30±0.20	0.40+0.15/-0.10
RGV2012	0805	2.00±0.20	1.25±0.20	0.40±0.20	0.40±0.20	0.40+0.15/-0.10
RGV3216	1206	3.20±0.20	1.60±0.25	0.50±0.25	0.50±0.20	0.40+0.15/-0.1
RGV3225	1210	3.20±0.20	2.50±0.25	0.50±0.25	0.50±0.20	0.40+0.15/-0.1

(unit : mm)

◆Reliability specification

Test items	Condition(IEC60115-1/JIS C5201-1)	Standard
Life (Biased)	85℃, rated voltage ※1, 90min. ON/ 30min. OFF, 1000hours	±(0.05%+0.05Ω)
High temperature high humidity	85℃、85%RH, 1/10 of rated power, 90min. ON/ 30min. OFF, 1000hours	±(0.1%+0.05Ω)
Temperature shock	-55℃ (30min) ~ 125℃(30min) 1000 cycles	±(0.1%+0.01Ω)
High temperature exposure	155℃, no bias, not mounted, 1000h	±(0.1%+0.01Ω)
Resistance to soldering heat	260±5℃, 10seconds (reflow)	±(0.05%+0.01Ω)

*1 Rated voltage is given by E= $\sqrt{R \times P}$ E= rated voltage (V), R=nominal resistance value(Ω), P=rated power(W)
If rated voltage exceeds maximum voltage /element, maximum voltage/element is the rated voltage.

◆Derating Curve