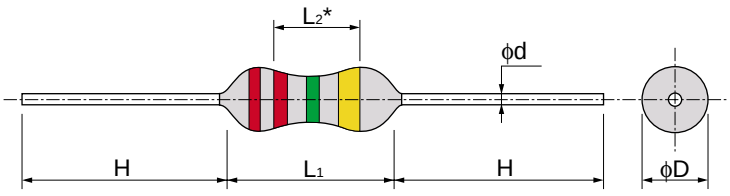
RNV 1

BSI TL5 VDE

●Features

1. High maximum working voltage-excellent for surges, applications.
2. Approved to BSI and VDE, standards.
   •BSI No.7778
   BS EN 60065:1994(BS 415:1994):Sub-clauses 9.3.5.14.1 (a) and (b)
   •VDE No.VDE-Reg.-Nr.10149
   DIN EN VDE (EN 60065:1994-04,14.1a)
3. Stability class : 5%

●Dimensions



Unit : mm

Style	L1	*L2	D	H	d	*Unit Weight/pc.
RNV 1	12.0 $^{+1.0}_{-1.5}$	6.0min.	4.0±1.0	37.0±2.0	0.7±0.1	703mg

L2:distance between inner caps

*Value For Reference

●Product Classification

Example

RNV	1	225	**J**	B
①Product Type	②Rated Power	③Rated Resistance	④Tolerance on Rated Resistance	⑤Packaging

Style

①Product Type

②Rated power	
Code	Rated power
1	1W

③Rated Resistance
3Digit : E12 Series e.g : 225=2.2M ohm

④Tolerance on Rated Resistance	
Code	Tolerance on Rated Resistance
J	±5%

*⑤Packaging	
Code	Packaging
B	Bulk(Straight)
H	Horizontal Forming
HB	Horizontal Forming (Free-Standing)
TB	52mm Width Taping(Fan Fold Box)
TD	52mm Width Taping(Reel)

*Refer to Taping and Packaging information in page 62. 63. 64
Contact us for information on the details of processing and packing.
The code numbers may be added to the codes in some cases.

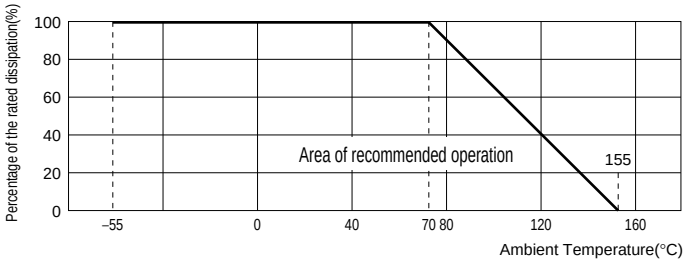
●Ratings

Style	Rated Dissipation at 70°C W	Limiting Element Voltage V	Rated Resistance Range	Tolerance on Rated Resistance	Preferred Number Series for Resistors	Isolation Voltage V	Category Temperature Range °C
RNV 1	1.0	2,000	0.47M ohm~12M ohm	J(±5%)	E12 Series	500	–55~+155

Note.1 Rated Voltage = $\sqrt{(\text{Rated Power})\times(\text{Rated Resistance})}$.(d.c. or a.c. r.m.s. Voltage)
Note.2 Limiting Element Voltage can only be applied to resistors when the resistance value is equal to or higher than the critical resistance value.

●Derating Curve

The derated values of dissipation at temperature in excess of 70°C shall be as indicated by the following Curve.



●Climatic Category

55/155/56

Lower Category Temperature	–55°C
Upper Category Temperature	+155°C
Duration of the Damp heat, Steady-State Test	56days

●Performance Characteristics JIS C 5201-1 : 1998

Description		Requirements	Test Methods
Voltage proof		No breakdown or flashover	Clause 4.7 V–block method 500Va.c.,60s
Variation of resistance with Temperature		T.C.R : 0.47M ohm~4.7M ohm : $\pm350\times10^{-6}$/°C 5.1M ohm~12M ohm : $^{+500}_{-600}\times10^{-6}$/°C	Clause 4.8 Measuring temperature : +20°C/–55°C/ +20°C/+155°C/+20°C
Overload		ΔR ±(0.5%+0.05 ohm) No visible damage, legible marking	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, 5s.
Overload ability		Within ±20%	Conditioned at 40°C,95% RH for 21 days Charge 10kV to capacitor(1,000pf)for 1 second and discharge for 4 seconds,total of 50 cycles
Robustness of Terminations	Tensile	ΔR ±(1%+0.05 ohm) No visible damage	Clause 4.16.2 10N for 5~10s
	Bending	ΔR ±(1%+0.05 ohm) No visible damage	Clause 4.16.3 5N twice
	Torsion	ΔR ±(1%+0.05 ohm) No visible damage	Clause 4.16.4 180°C 2 rotation
Solderability		In accordance with Clause 4.17.4.5	Clause 4.17 235°C, 2s
Resistance to soldering heat		ΔR ±(1%+0.05 ohm) No visible damage, legible marking	Clause 4.18 After immersion into the flux, the immersion into solder shall be carried out in solder bath at 350°C for 3.5s.
Rapid change of temperature		ΔR ±(1%+0.05 ohm) No visible damage	Clause 4.19 5 cycles between –55°C and +155°C.
Climatic sequence		ΔR ±(5%+0.1 ohm) Insulation resistance : R 100M ohm No visible damage	Clause 4.23 Dry/Damp heat(12+12h cycle), first cycle./ Cold/Damp heat(12+12h cycle), remaining cycle./ D.C.Load.
Damp test, steady state		ΔR ±(5%+0.1 ohm) Insulation resistance : R 100M ohm No visible damage, legible marking	Clause 4.24 40°C 95%R.H. 56days, test a),b) and c) of Clause 4.24.2.1
Endurance at 70°C		ΔR ±(5%+0.1 ohm) No visible damage Insulation resistance : R 1G ohm	Clause 4.25.1 Rated voltage, 1.5h "ON", 0.5h "OFF", 70°C, 1000h.
Endurance at the upper Category temperature		ΔR ±(5%+0.1 ohm) No visible damage Insulation resistance : R 1G ohm	Clause 4.25.3 155°C, no-load, 1000h.